A/58/20

United Nations

Report of the Committee on the Peaceful Uses of Outer Space

General Assembly
Official Records
Fifty-eighth Session
Supplement No. 20 (A/58/20)

General Assembly
Official Records
Fifty-eighth Session
Supplement No. 20 (A/58/20)

Report of the Committee on the Peaceful Uses of Outer Space

United Nations • New York, 2003

Note

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

ISSN 0255-1144

Contents

Chapter			Paragraphs	Page
I.	Introduction		1-29	1
	A.	Meetings of subsidiary bodies	2-3	1
	B.	Adoption of the agenda	4	1
	C.	Membership	5	2
	D.	Attendance	6-10	2
	E.	Bureaux of the Committee and its subcommittees	11-15	3
	F.	General statements	16-28	3
	G.	Adoption of the report of the Committee	29	5
II.	Recommendations and decisions		30-251	6
	A.	Ways and means of maintaining outer space for peaceful purposes	30-48	6
	B.	Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space	49-66	8
	C.	Report of the Scientific and Technical Subcommittee on its fortieth session	67-140	11
		1. United Nations Programme on Space Applications	69-100	11
		2. Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment	101-104	19
		3. Use of nuclear power sources in outer space	105-111	19
		4. Means and mechanisms for strengthening inter-agency cooperation and increasing the use of space applications and services within and among entities of the United Nations system	112-116	20
		5. Implementation of an integrated, space-based global natural disaster management system	117-120	21
		6. Space debris	121-130	22
		7. Examination of the physical nature and technical attributes of the geostationary orbit and of its utilization and applications, including, inter alia, in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries	131	23
		8. Mobilization of financial resources to develop capacity in space science and technology applications	132	23
		9. The use of space technology for the medical sciences and public health	133-134	23

10. Draft provisional agenda for the forty-first session of the Scientific and Technical Subcommittee ... 135-140 24

D. Report of the Legal Subcommittee on its forty-second session ... 141-209 26

1. Status and application of the five United Nations treaties on outer space ... 143-162 26

2. Information on the activities of international organizations relating to space law ... 163-168 28

3. Matters relating to: (a) the definition and delimitation of outer space; and (b) the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union ... 169-176 29

4. Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space ... 177-178 30

5. Examination of the preliminary draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment (opened for signature in Cape Town on 16 November 2001) ... 179-195 30

6. Draft provisional agenda for the forty-third session of the Legal Subcommittee ... 196-209 32

E. Spin-off benefits of space technology: review of current status ... 210-223 35

F. Space and society ... 224-240 37

G. Other matters ... 241-250 40

1. Composition of the bureaux of the Committee and its subsidiary bodies for the term starting in 2004 ... 241 40

2. Membership of the Committee ... 242-244 41

3. Observer status ... 245-246 41

4. New item on the agenda of the Committee ... 247-248 41

5. Proposed programme budget for the biennium 2004-2005 ... 249-250 42

H. Schedule of work of the Committee and its subsidiary bodies ... 251 42

Annexes

I. Report of the working group established to prepare a report for submission to the General Assembly at its fifty-ninth session for the review of the progress made in the implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III) ... 43

II. Results of the intersessional informal consultations on the composition of the bureaux of the Committee on the Peaceful Uses of Outer Space and its subsidiary bodies ... 51

Chapter I

Introduction

1. The Committee on the Peaceful Uses of Outer Space held its forty-sixth session in Vienna from 11 to 20 June 2003. The officers of the Committee were as follows:

Chairman: Raimundo González (Chile)

First Vice-Chairman: Driss El Hadani (Morocco)

Second Vice-Chairman/Rapporteur: Susetyo Mulyodrono (Indonesia)

The unedited verbatim transcripts of the meetings of the Committee are contained in documents COPUOS/T.503-517.

A. Meetings of subsidiary bodies

2. The Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space had held its fortieth session in Vienna from 17 to 28 February 2003 under the chairmanship of Karl Doetsch (Canada). The report of the Subcommittee was before the Committee (A/AC.105/804).

3. The Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space had held its forty-second session in Vienna from 24 March to 4 April 2003 under the chairmanship of Vladimír Kopal (Czech Republic). The report of the Subcommittee was before the Committee (A/AC.105/805). The unedited verbatim transcripts of the meetings of the Subcommittee are contained in documents COPUOS/Legal/T.674-692.

B. Adoption of the agenda

4. At its opening meeting, the Committee adopted the following agenda:

1. Opening of the session.
2. Adoption of the agenda.
3. Election of officers.
4. Statement by the Chairman.
5. General exchange of views.
6. Ways and means of maintaining outer space for peaceful purposes.
7. Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III).
8. Report of the Scientific and Technical Subcommittee on its fortieth session.
9. Report of the Legal Subcommittee on its forty-second session.
10. Spin-off benefits of space technology: review of current status.

11. Space and society.

12. Other matters.

13. Report of the Committee to the General Assembly.

C. Membership

5. In accordance with General Assembly resolutions 1472 A (XIV) of 12 December 1959, 1721 E (XVI) of 20 December 1961, 3182 (XXVIII) of 18 December 1973, 32/196 B of 20 December 1977, 35/16 of 3 November 1980, 49/33 of 9 December 1994, 56/51 of 10 December 2001 and 57/116 of 11 December 2002 and decision 45/315 of 11 December 1990, the Committee on the Peaceful Uses of Outer Space was composed of the following 65 States: Albania, Algeria, Argentina, Australia, Austria, Belgium, Benin, Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Chad, Chile, China, Colombia, Cuba, Czech Republic, Ecuador, Egypt, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Italy, Japan, Kazakhstan, Kenya, Lebanon, Malaysia, Mexico, Mongolia, Morocco, Netherlands, Nicaragua, Niger, Nigeria, Pakistan, Peru, Philippines, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Senegal, Sierra Leone, Slovakia, South Africa, Spain, Sudan, Sweden, Syrian Arab Republic, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay, Venezuela and Viet Nam.

D. Attendance

6. Representatives of the following 53 States members of the Committee attended the session: Algeria, Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Burkina Faso, Canada, Chile, China, Colombia, Cuba, Czech Republic, Ecuador, Egypt, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Italy, Japan, Kenya, Lebanon, Malaysia, Mexico, Morocco, Netherlands, Nigeria, Pakistan, Peru, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Slovakia, South Africa, Spain, Sudan, Sweden, Syrian Arab Republic, Turkey, Ukraine, United Kingdom, United States, Uruguay, Venezuela and Viet Nam.

7. At its 503rd meeting, the Committee decided to invite, at their request, representatives of Angola, Costa Rica, the Holy See, the Libyan Arab Jamahiriya, Switzerland, Thailand and Yemen to attend its forty-sixth session and to address it, as appropriate, on the understanding that it would be without prejudice to further requests of that nature and that it would not involve any decision of the Committee concerning status.

8. Representatives of the United Nations Educational, Scientific and Cultural Organization and the International Atomic Energy Agency attended the session.

9. The session was also attended by representatives of the European Association for the International Space Year, the European Community, the European Space Agency, the International Astronautical Federation, the International Institute of Applied Systems Analysis, the International Law Association, the International Mobile Satellite Organization, the International Society for Photogrammetry and

Remote Sensing, the National Space Society, the Regional Centre for Remote Sensing of the North African States, the Space Generation Advisory Council and Spaceweek International Association.

10. A list of representatives of States members of the Committee, States not members of the Committee, United Nations entities and other organizations attending the session is contained in document A/AC.105/XLVI/INF/1.

F. Bureaux of the Committee and its subcommittees

11. The Committee noted with satisfaction that, as agreed at its forty-fifth session,[1] the Government of Austria had convened and facilitated intersessional informal consultations, including the chairpersons of the regional groups, on the composition of the bureaux of the Committee and its subsidiary bodies, with a view to reaching consensus before the forty-sixth session of the Committee.

12. At the 503rd meeting of the Committee, the Government of Austria reported to the Committee on a consensus agreement reached during the informal consultations. The agreement is reflected in a note by the Secretariat on the subject (A/AC.105/L.245). The Committee endorsed the agreement on the composition of the bureaux of the Committee and its subsidiary bodies, which is contained in annex II to the present report.

13. In accordance with that agreement, the terms of office of both the Chairman and the First Vice-Chairman of the forty-fifth session of the Committee were extended for one more year.

14. The Committee was informed that Harijono Djojodihardjo (Indonesia) would be unable to extend his term of office as Second Vice-Chairman/Rapporteur of the Committee. The Committee recalled the agreement that it had reached in 1997 on the working methods of the Committee and its subsidiary bodies,[2] which provided that when any officer could not complete a term, the regional group holding the office concerned should nominate a candidate to be elected at the beginning of the session that immediately followed the termination of that officer's tenure.

15. At its 509th meeting, on 16 June, the Committee was informed that the Group of Asian States had nominated Susetyo Mulyodrono (Indonesia) as its candidate for the office of Second Vice-Chairman/Rapporteur of the Committee. The Committee elected Susetyo Mulyodrono (Indonesia) as Second Vice-Chairman/Rapporteur of the Committee for its forty-sixth session.

F. General statements

16. The Committee expressed its sympathy and solidarity with the families and friends of the international crew of the Space Shuttle Columbia, as well as with the international space community, for the loss of Columbia and its crew during re-entry on 1 February 2003, which affected all humanity. The Committee expressed its hope that that tragic event would not negatively affect international space programmes.

17. The Committee expressed its sympathy with the people of Algeria, Turkey and other countries that had recently suffered major earthquakes. In the light of those

events, the Committee noted the urgency of ensuring wider use of space services for disaster management.

18. The Committee expressed its gratitude to Petr Lála and Mazlan Othman for their exceptional service in the Office for Outer Space Affairs of the Secretariat. The Committee also expressed its satisfaction with the appointment of Sergio Camacho as Director of the Office.

19. Statements were made by representatives of the following States members of the Committee during the general exchange of views: Algeria, Argentina, Austria, Brazil, Canada, Chile, China, Colombia, Ecuador, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Italy, Japan, Malaysia, Mexico, Morocco, Nigeria, Pakistan, Peru, Portugal, Republic of Korea, Romania, Russian Federation, Syrian Arab Republic, Turkey, Ukraine, United States and Venezuela. The representative of the Libyan Arab Jamahiriya also made a statement. Statements were also made by the representatives of the European Space Agency (ESA), the European Association for the International Space Year, the National Space Society and the International Society for Photogrammetry and Remote Sensing.

20. At the 503rd meeting, on 11 June 2003, the Chairman made a statement outlining the work of the Committee at its current session and stressing the need for the Committee to identify concrete initiatives that would ensure the effective use of space capabilities to promote global health and education, to strengthen decision-making in the management of natural resources, in particular water resources, and, in general, to alleviate poverty and its effects and foster economic and social development. He noted that one way to achieve that would be for the Committee to invite high-level representatives of the space agencies to organize a working group to prepare a report for consideration by the Committee, with a view to strengthening international cooperation. The working group could examine, for instance, action called for in the Plan of Implementation of the World Summit on Sustainable Development.[3]

21. Also at the 503rd meeting, the representative of Cuba made a statement on behalf of the Group of Latin American and Caribbean States.

22. At the same meeting, the Director of the Office for Outer Space Affairs made a statement in which he reviewed the extensive work done by the Office during the previous year.

23. At the 509th meeting, on 16 June, the Director-General of the United Nations Office at Vienna and Executive Director of the United Nations Office on Drugs and Crime made a statement to the Committee.

24. The Committee noted with satisfaction that the Fourth Space Conference of the Americas had been held successfully in Cartagena de Indias, Colombia, from 14 to 17 May 2002. The Committee also welcomed the memorandum of understanding between the Office for Outer Space Affairs and the Pro Tempore Secretariat of the Conference, under which the parties had demonstrated their intention to collaborate in promoting and implementing joint activities, in particular through the United Nations Programme on Space Applications, and to promote cooperation in projects at the regional level. The Committee noted the desire of its member States in Latin America and the Caribbean to institutionalize the Space

Conference of the Americas. The Committee also noted that the Fourth Space Conference of the Americas had agreed on the importance of creating effective mechanisms for cooperation and coordination in the region.

25. The Committee welcomed Algeria as a new member and noted its active participation in the Committee and the subcommittees during its first year of membership. The Committee urged all its members, in particular new members and significant space-faring countries, to participate actively in its sessions.

26. To ensure that all delegations participate actively in its sessions, the Committee agreed that a letter should be sent to the Director-General of the United Nations Office at Vienna and Executive Director of the United Nations Office on Drugs and Crime, requesting that other intergovernmental meetings not be held in Vienna at the same time as sessions of the Committee.

27. Taking into account the valuable contribution of Vladimír Kopal (Czech Republic), Chairman of the Legal Subcommittee during its thirty-eighth, thirty-ninth, fortieth, forty-first and forty-second sessions, the Committee agreed that he would present to the Committee, at its forty-seventh session, a special lecture providing a historical perspective and his personal reflection on the development of the Committee.

28. The Committee expressed its satisfaction and appreciation to Karl Doetsch (Canada), Chairman of the Scientific and Technical Subcommittee during its thirty-eighth, thirty-ninth and fortieth sessions, for his dedication and valuable contribution to the work of the Subcommittee.

G. Adoption of the report of the Committee

29. After considering the various items before it, the Committee, at its 517th meeting, on 20 June 2003, adopted its report to the General Assembly containing the recommendations and decisions set out below.

Chapter II
Recommendations and decisions

A. Ways and means of maintaining outer space for peaceful purposes

30. In accordance with paragraph 42 of General Assembly resolution 57/116, the Committee on the Peaceful Uses of Outer Space continued its consideration, as a matter of priority, of ways and means of maintaining outer space for peaceful purposes.

31. The Committee was of the view that the General Assembly, by requesting in resolution 57/116 that the Committee continue to consider, as a matter of priority, ways and means of maintaining outer space for peaceful purposes and to report thereon to the Assembly at its fifty-eighth session, had expressed the concern of the international community about the need to promote international cooperation in the peaceful uses of outer space, taking into particular account the needs of developing countries. The Committee, through its work in the scientific, technical and legal fields, had a fundamental role to play in ensuring that outer space was maintained for peaceful purposes. That role could be strengthened by new initiatives, as well as continuing progress in implementing the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III).

32. The Committee agreed that it had responsibilities relating to strengthening the international basis for the peaceful exploration and uses of outer space, which could cover, among other things, the further development of international space law, including, as appropriate, the preparation of international agreements governing various practical peaceful applications of space science and technology.

33. The Committee agreed that activities involving international cooperation, such as participation in international scientific campaigns, sharing of satellite data, providing educational and training assistance to other countries and building institutional capacity, should be further encouraged to enable outer space to be explored and used for peaceful purposes.

34. The Committee agreed that beneficial uses of space had enormous relevance for human development, in particular in developing countries, and that the wider adoption of such beneficial applications would strengthen the goal of maintaining outer space for peaceful purposes.

35. The Committee agreed that, under the agenda item entitled "Ways and means of maintaining outer space for peaceful purposes", it could consider issues such as ways to promote regional and interregional cooperation based on experiences stemming from the Space Conferences of the Americas and the role space technology could play in the implementation of recommendations emerging from the World Summit on Sustainable Development.

36. The view was expressed that the increased use of space applications was in contradiction with the decline in the market share for the space field. That trend could provide opportunities if more innovative applications using space systems could be created in areas such as distance education, telemedicine and disaster management and if more cooperative ventures could be organized so that States

could make optimal use of the resources available to them, thereby avoiding competition and making more developing countries stakeholders in the space field.

37. The view was expressed that the success of the efforts of the Committee to revitalize its work was evidenced by the growing relevance of its work to the international community, in particular, by the steady increase over the past few years in the number of other intergovernmental organizations, as well as non-governmental organizations and private entities, seeking to participate in the activities of the Committee. That delegation also expressed the view that the increased presence of non-governmental experts in the work of the Committee was an extremely positive development that had enriched the Committee and that the successful implementation of the recommendations of UNISPACE III would ultimately depend on the increased presence of those experts.

38. The view was expressed that, under this multifaceted agenda item, the Committee should develop a clear, structured methodology oriented towards achieving specific results. To that end, the Committee should develop a questionnaire to be completed by member States and compiled as a special report of the Committee. Based on that report, the Committee could identify themes for special consideration, as well as the objectives of discussions and deadlines for any action. That exercise could lead to, among other things, the identification of principles to be included in a universal comprehensive convention on outer space law.

39. The view was expressed that the Committee had been established as the body of the General Assembly concerned exclusively with promoting international cooperation in the peaceful uses of outer space. That delegation expressed the view that it had been clear at the time of the Committee's formation that there would be entirely independent efforts to address disarmament issues, including in forums such as the First Committee of the General Assembly and the Conference on Disarmament. That delegation expressed the view that the unprecedented level of international cooperation and the significant presence of the private sector in outer space did not support calls for the Committee to consider matters relating to the militarization of outer space. That delegation was of the view that the Committee provided a unique forum for the exchange of information among developed and developing countries on the latest developments in the use and exploration of outer space and that there were tangible opportunities to enhance international cooperation in line with the mandate of the Committee.

40. The view was expressed that the Committee had not been fulfilling the mandate given to it by the General Assembly in recommending ways and means of maintaining outer space for peaceful purposes. That delegation expressed the view that the Committee should address itself to that issue, since military activities in outer space were seriously affecting international cooperation in the exploration and peaceful uses of outer space.

41. Some delegations expressed the view that the Committee should establish a practical mechanism for coordinating its work with that of other related bodies, such as the Conference on Disarmament.

42. The view was expressed that it would be natural for the Committee and its subcommittees, as the United Nations bodies concerned with outer space, to provide

expertise on scientific, technical and legal aspects of outer space to the Conference on Disarmament and other United Nations entities.

43. Some delegations expressed the view that a greater risk of the introduction of weapons into outer space and the adoption of a concept of a use of force in outer space would undermine the basis for and the very logic of developing non-proliferation mechanisms and of the whole system of international security.

44. The view was expressed that, since an international legal mechanism capable of preventing the militarization of outer space had not yet been developed, the Committee should make greater efforts to prevent the militarization of outer space, in particular by drawing up an international agreement to prevent an arms race in outer space.

45. The view was expressed that an international agreement should be concluded to prohibit the deployment of weapons in outer space. That delegation recalled initiatives to that end that had been made in the Conference on Disarmament.

46. The Committee was informed that prior information on space objects to be launched by the Russian Federation, their purpose and parameters was available on the web site of the Russian Ministry of Foreign Affairs (www.mid.ru) and that plans were being made to make that information available on the web site of the Office for Outer Space Affairs as well. The view was expressed that the provision of similar information by other launching States would help to promote greater trust in the area of space activities.

47. The view was expressed that the emerging practice of States concluding agreements specifically addressing technology safeguard issues for rocket and other space technologies, as well as the inclusion into framework intergovernmental space cooperation agreements of provisions on the physical and legal protection of space-related property on the territory of an importing State, including immunity of such goods from seizures and executive action, was one positive development in ensuring that those technologies were used only for peaceful purposes.

48. The Committee recommended that, at its forty-seventh session, in 2004, it should continue its consideration, on a priority basis, of the item on ways and means of maintaining outer space for peaceful purposes.

B. Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space

49. In accordance with General Assembly resolution 57/116, the Committee considered an item on the implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III).

50. In accordance with paragraph 28 of resolution 57/116, the Committee, at its 503rd meeting, on 11 June 2003, reconvened the working group to prepare a report for submission to the General Assembly, in order for the Assembly to review and appraise, at its fifty-ninth session, in 2004, the implementation of the

recommendations of UNISPACE III and to consider further action and initiatives. The Chairman of the working group was Niklas Hedman (Sweden).

51. The Committee expressed its full support to the work being conducted by the working group.

52. At its 517th meeting, on 20 June 2003, the Committee endorsed the recommendations of the working group as contained in the report of the working group (see annex I to the present report).

53. The Committee noted that, in accordance with General Assembly resolution 57/116, the Scientific and Technical Subcommittee at its fortieth session had convened the Working Group of the Whole to consider the implementation of the recommendations of UNISPACE III. The Chairman of the Working Group of the Whole was Muhammad Nasim Shah (Pakistan). The Committee noted that the Working Group of the Whole had made recommendations on the following: (a) progress made by the action teams established by the Committee at its forty-fourth session; (b) establishment of an action team for recommendation 9 ("Improve knowledge-sharing through the promotion of universal access to space-based communication services"); and (c) input for the report of the Committee to the General Assembly at its fifty-ninth session, in 2004, for its review of the implementation of the recommendations of UNISPACE III (A/AC.105/804, annex II).

54. The Committee stressed the importance of the implementation of the recommendations of UNISPACE III. The Committee recalled that the responsibility to implement the recommendations rested with member States, the Office for Outer Space Affairs under the guidance of the Committee and its subsidiary bodies, intergovernmental organizations for multilateral cooperation and other entities with space-related activities.

55. The Committee noted that all 11 action teams established at its forty-fourth session had reported on the progress made in their work to the Scientific and Technical Subcommittee at its fortieth session and to the Committee at the forty-sixth session (A/AC.105/L.247, A/AC.105/2003/CRP.9, A/AC.105/2003/CRP.10 and A/AC.105/2003/CRP.17).

56. The Committee expressed its satisfaction with the progress made by the action teams in their work and gave its full support for the work of the action teams. Having noted that the level of participation of members was limited in the case of some action teams, the Committee urged all members of the action teams to actively participate in and contribute to their work.

57. The Committee also noted that, in accordance with the work plans that they had submitted to the Subcommittee at its thirty-ninth session, the Action Team on Sustainable Development (recommendation 11) had submitted its final report (A/AC.105/C.1/L.264) to the Subcommittee and the Action Team on New and Innovative Sources of Funding (recommendation 32) had submitted its final report (A/AC.105/L.246) to the Committee.

58. The Committee noted that the Chairman of the Action Team on Sustainable Development had invited the Committee to evaluate how realistic and achievable the recommendations of that Action Team were and to identify entities that could implement those recommendations.

59. The Committee recognized the need to prepare for the implementation of pilot projects, detailed by action teams in a step-by-step manner, as necessary.

60. The Committee noted that the reasons for the low level of feedback and participation by members of some action teams could be related to the lack of capacity and institutionalized mechanisms, as well as the shortage of resources and expertise in gathering information and data exchange among national institutions.

61. The Committee noted that some action teams had divided tasks and responsibilities among members of action teams based on their capacities and capabilities and that that method of work had proved to be beneficial and could be followed by some action teams.

62. The Committee noted that Greece and Malaysia would co-chair the Action Team on Knowledge-Sharing, established at the fortieth session of the Subcommittee to implement recommendation 9 of UNISPACE III. The Committee noted with satisfaction that the Action Team had submitted to it a document containing objectives, a plan of action and expected output (A/AC.105/2003/CRP.8).

63. The Committee heard the following presentations under this item:

(a) "FIDAE 2004 and space", by A. Lefno of Chile;

(b) "Global environmental monitoring strategy", by A. Movlyav of the Russian Federation;

(c) "The role and benefits of professional societies in creating and supporting local aerospace capabilities", by A. Iasiello of the United States;

(d) "Activities of the International GPS Service", by R. Neilan of the United States;

(e) "IAF/IAA/ISU/UNESCO Expert Workshop on Space and Education", by P. Willekens of the European Space Agency (ESA);

(f) "WSSD follow-up program", by M. Hales of the Committee on Earth Observation Satellites (CEOS);

(g) "Green paper on European space policy", by H. Bischoff of the European Commission.

64. The Committee noted that the annual report on the international celebration of World Space Week in 2002, prepared by the Space International Association in cooperation with the Office for Outer Space Affairs, had been made available in a special publication (ST/SPACE/19).

65. The Committee noted that many activities of non-governmental entities had relevance to the implementation of recommendations of UNISPACE III.

66. The Committee noted that, following the Fourth United Nations/United States of America Workshop on the Use of Global Navigation Satellite Systems, organized by the Office for Outer Space Affairs in Lusaka in July 2002, the Windhoek Declaration had been prepared by heads or representatives of national mapping agencies in December 2002 with a view to developing an African Reference Frame, involving more than 50 countries in Africa. The Committee noted with satisfaction that that development was a concrete example of how the Office for Outer Space Affairs and in particular the United Nations Programme on Space Applications

could have a significant effect on efforts to promote the use of space technology for the benefit of developing countries.

C. Report of the Scientific and Technical Subcommittee on its fortieth session

67. The Committee took note with appreciation of the report of the Scientific and Technical Subcommittee on its fortieth session (A/AC.105/804), which covered the results of its deliberations on the items assigned to it by the General Assembly in resolution 57/116.

68. At the 507th meeting of the Committee, the Chairman of the Scientific and Technical Subcommittee made a statement outlining the work of the Subcommittee at its fortieth session.

1. United Nations Programme on Space Applications

(a) Activities of the United Nations Programme on Space Applications

69. At the outset of the deliberations on this item, a representative of the Office for Outer Space Affairs briefed the Committee on the overall strategy for the implementation of the United Nations Programme on Space Applications. The strategy would concentrate on a few priority areas for developing countries and establish objectives that could be reached in the short and medium term. The Committee noted that, within each priority area, the two main objectives would be (a) capacity-building and (b) building awareness among decision makers in order to strengthen local support for the operational use of space technologies.

70. The Committee noted that the priority areas of the Programme were (a) disaster management; (b) satellite communications for tele-education and telemedicine applications; (c) monitoring and protection of the environment including the prevention of infectious diseases; (d) management of natural resources; and (e) education and capacity-building, including research areas in basic space sciences. Other areas that the Programme would promote included developing capability in enabling technologies, such as the use of global navigation and positioning satellite systems, spin-offs of space technology, promoting the participation of youth in space activities, applications of small satellites and micro-satellites and promoting the participation of private industry in activities of the Programme. The Committee further noted that the activities of the Programme would support, where feasible, the action teams established by the Committee to implement the recommendations of UNISPACE III.

71. The Committee took note of the activities of the Programme carried out in 2002 as set out in the report of the Scientific and Technical Subcommittee (A/AC.105/804, paras. 37-41). The Committee expressed its appreciation to the Office for Outer Space Affairs for the manner in which the activities of the Programme had been implemented using the limited funds available. The Committee also expressed its appreciation to the Governments and intergovernmental and non-governmental organizations that had sponsored the activities. The Committee noted with satisfaction that further progress was being

made in the implementation of the activities of the Programme for 2003, as set out in the report of the Subcommittee (A/AC.105/804, para. 42).

72. The Committee once again expressed its concern that the financial resources available to the United Nations Programme on Space Applications remained limited and appealed to the donor community to support the Programme through voluntary contributions. The Committee was of the view that the limited resources of the United Nations should be focused on the activities with the highest priority; it noted that the United Nations Programme on Space Applications was the priority activity of the Office for Outer Space Affairs.

(i) United Nations conferences, training courses and workshops

73. With regard to the United Nations activities organized in the first half of 2003, the Committee expressed its appreciation for the following activities:

(a) United Nations/Romania/European Space Agency Regional Workshop on the Use of Space Technology for Disaster Management, held in Poiana Brasov, Romania, from 19 to 23 May 2003;

(b) Thirteenth United Nations/Sweden International Training Course on Remote Sensing Education for Educators, held in Stockholm and Kiruna, Sweden, from 5 May to 13 June 2003.

74. The Committee endorsed the following workshops, training courses, symposiums and conferences planned for the remaining part of 2003, based on the programme of activities described in the report of the Expert on Space Applications (A/AC.105/790 and Corr.1, annex II):

(a) United Nations/European Space Agency Workshop on Remote Sensing Applications and Education, to be held in Damascus from 29 June to 3 July 2003;

(b) United Nations/Thailand Workshop on the Contribution of Space Communication Technology to Bridging the Digital Divide, to be held in Thailand from 1 to 5 September 2003;

(c) United Nations/Austria/European Space Agency Symposium on Space Applications to Support the Plan of Implementation of the World Summit on Sustainable Development, to be held in Graz, Austria, from 8 to 11 September 2003;

(d) United Nations/International Astronautical Federation Workshop on Education and Capacity Building in Space Technology for the Benefit of Developing Countries with emphasis on remote sensing applications, to be held in Bremen, Germany, from 25 to 27 September 2003;

(e) Fourth United Nations/International Academy of Astronautics Workshop on Small Satellites in the Service of Developing Countries: a Contribution to Sustainable Development, to be held in Bremen, Germany, on 30 September 2003;

(f) United Nations/Republic of Korea Workshop on Space Law, entitled "United Nations treaties on outer space: actions at the national level", to be held in Daejeon, Republic of Korea, from 3 to 6 November 2003;

(g) United Nations/United States of America Training Course on Satellite-Aided Search and Rescue, to be held in Miami, Florida, United States, from 10 to 14 November 2003;

(h) United Nations/Saudi Arabia Regional Workshop on the Use of Space Technology for Disaster Management, to be held in Saudi Arabia from 13 to 17 December 2003;

(i) United Nations/United States of America International Workshop on the Use and Applications of Global Navigation Satellite Systems, to be held in Vienna from 8 to 12 December 2003;

(j) Panel of Experts on Satellite Communications Technology to Bridge the Digital Divide, to be held in Geneva from 10 to 12 December 2003;

(k) The following workshops and training courses being organized at the regional centres for space science and technology education, affiliated to the United Nations:

(i) In India:

a. Third nine-month postgraduate course on satellite meteorology and global climate;

b. Fourth nine-month postgraduate course on satellite communications;

c. Seventh nine-month postgraduate course on remote sensing and geographic information systems (GIS);

d. International short course on remote sensing and GIS: technology and applications in natural resources and environmental management;

e. Third nine-month postgraduate course on space and atmospheric science;

f. International short training course on geoinformatics for biodiversity assessment;

(ii) In Morocco:

a. First nine-month training course on satellite meteorology, completed in 2002;

b. Second nine-month training course on satellite communications, which started in November 2002;

c. International Workshop on the Use of Space Technology in Telemedicine, to be held in June 2003;

(iii) In Nigeria: nine-month training course on satellite communications and GIS, which started in December 2002;

(iv) In Brazil: the first postgraduate course in remote sensing and GIS, from April to December 2003.

75. The Committee endorsed the following programme of workshops, training courses, symposiums and conferences planned for 2004, for the benefit of developing countries:

(a) Fourteenth United Nations/Sweden International Training Course on Remote Sensing Education for Educators, to be held in Stockholm and Kiruna, Sweden, in May-June 2004;

(b) Twelfth United Nations/European Space Agency Workshop on Basic Space Science, to be held in China from 24 to 28 May 2004;

(c) United Nations/Austria/European Space Agency Symposium on the Operational Use of Space Technology in Sustainable Development, to be held in Graz, Austria, in September 2004;

(d) United Nations/International Astronautical Federation Workshop on the Use of Space Technology for the Benefit of Developing Countries, to be held in Canada;

(e) United Nations International Workshop on the Use of Space Technology for Disaster Management, to be held in Germany;

(f) United Nations/Space and Upper Atmosphere Research Commission Seminar on Space Technology Applications: Monitoring and Protection of the Natural Environment, to be held in Islamabad in August/September 2004;

(g) United Nations workshop on space law;

(h) United Nations Workshop on Satellite-Aided Search and Rescue;

(i) United Nations Workshop on the Contribution of Satellite Communication Technology to Bridging the Digital Divide;

(j) United Nations/Islamic Republic of Iran Workshop on the Use of Space Technology for Environmental Security, Disaster Rehabilitation and Sustainable Development, to be held in May 2004;

(k) United Nations/European Space Agency/Switzerland/Austria Workshop on Remote Sensing in the Service of Sustainable Development in Mountain Areas, to be held in Kathmandu in 2004;

(l) Several workshops to be organized at the regional centres for space science and technology education affiliated to the United Nations.

76. The Committee noted with appreciation financial contributions of $130,000 from ESA to the United Nations Programme on Space Applications in 2002 and $500,000 from the Government of the United States for activities of the Programme from 2001 to 2003; and $60,000 from the National Oceanic and Atmospheric Administration of the United States on behalf of CEOS and €55,000 from the Government of France in support of workshops on disaster management. The Committee also noted with appreciation that the Government of the Libyan Arab Jamahiriya had contributed €6,800 and the Government of Austria had contributed €2,880 for activities relating to World Space Week in 2002. The Committee noted with appreciation that, since its previous session, additional resources for 2002 had been offered by various member States and organizations and had been acknowledged in the report of the Expert (A/AC.105/790 and Corr.1, paras. 41 and 42).

77. The Committee noted with appreciation the provision, by host countries and entities, of experts to serve as instructors and speakers in activities of the United Nations Programme on Space Applications in 2003. It also noted with appreciation that the Government of France had provided an associate expert to support the implementation of the United Nations Programme on Space Applications in 2002. It also noted with appreciation the financial and other assistance that had been

provided for the Programme by the Government of Austria, the Government of Styria and the City of Graz, Austria, and the Department of Physical Geography of Stockholm University, Metria, the National Land Survey of Sweden and the Swedish International Development Cooperation Agency.

78. The Committee noted with appreciation that the host countries of the regional centres for space science and technology education were providing significant financial and other support to the centres. The Committee noted with appreciation the continuing efforts undertaken by the United Nations Programme on Space Applications, in accordance with General Assembly resolution 45/72 of 11 December 1990, in leading an international effort to establish regional centres for space science and technology education in existing national or regional educational institutions in developing countries, as contained in the document entitled "Regional centres for space science and technology education (affiliated to the United Nations)" (A/AC.105/782). The Committee also noted that, once established, each centre could expand and become part of a network that could cover specific programme elements in established institutions related to space science and technology in each region.

(ii) Long-term fellowships for in-depth training

79. The Committee expressed appreciation to ESA for having offered two fellowships for 2002 for research in remote sensing technology at the facilities of the European Space Research Institute of ESA in Frascati, Italy, and three fellowships for research in satellite communications and remote sensing technology at the facilities of the European Space Research and Technology Centre of ESA in the Netherlands. It was noted that for 2003 two fellowship opportunities in remote sensing technology would be available at the ESA European Space Research Institute facilities and that the three fellowships at European Space Research and Technology Centre would become available in due course.

80. The Committee noted that it was important to increase the opportunities for in-depth education in all areas of space science, technology and applications projects through long-term fellowships and urged Member States to make such opportunities available at their relevant institutions.

(iii) Technical advisory services

81. The Committee noted that the Programme had provided technical advisory services in support of projects involving regional space applications, as indicated in the report of the Expert on Space Applications (A/AC.105/790 and Corr.1, paras. 26-35), including the following:

(a) Collaboration with ESA on follow-up pilot projects in Africa, Asia and the Pacific, Latin America and the Caribbean and Western Asia relating to the series of workshops on basic space science, and collaboration with ESA and the Department of Economic and Social Affairs of the Secretariat in providing the technical assistance and expertise required for the joint United Nations/ESA follow-up programme on the use of remote sensing technology in sustainable development;

(b) Providing assistance to support the growth and operation of the Asia-Pacific Satellite Communications Council, technical assistance in the preparations

for the Council's 2003 conference and exhibition and assistance in extending the Council's membership;

(c) Providing assistance to the Disaster Management Support Group of CEOS;

(d) A presentation made to the sixteenth plenary meeting of CEOS, held in Frascati, Italy, on 20 and 21 November 2002, on the progress made by the Committee on the Peaceful Uses of Outer Space and its Scientific and Technical Subcommittee in implementing the recommendations of UNISPACE III, in particular through the action teams established by the Committee. The representative of the Office for Outer Space Affairs briefed CEOS on the results of the workshops on the use of space technology in disaster management, organized under the Programme for the regions of Africa, Asia and the Pacific in 2002. The workshops had been co-sponsored by CEOS;

(e) Supporting Colombia in its role as pro tempore secretariat to implement the Plan of Action of the Fourth Space Conference of the Americas;

(f) Co-sponsoring the 21st Plenary Meeting of the Latin American Society on Remote Sensing and Spatial Information Systems and the Tenth Latin American Symposium on Remote Sensing, held in Cochabamba, Bolivia, from 11 to 15 November 2002.

(iv) Promotion of greater cooperation in space science and technology

82. The Committee on the Peaceful Uses of Outer Space noted that the United Nations Programme on Space Applications had co-sponsored the Panel on Space Research in Developing Countries, held at the thirty-fourth Scientific Assembly of the Committee on Space Research during the World Space Congress 2002, which was held in Houston, Texas, United States, from 10 to 19 October 2002.

83. The Committee also noted that the Programme, in cooperation with ESA, would support in 2003 a pilot project in Africa on the development of an information system for determining, monitoring and assessing African flood areas together with the establishment of an inventory of superficial waters in the Nakambé river basin in Burkina Faso.

84. The Committee also noted that the Office for Outer Space Affairs had contributed to the first Space Policy Summit, held during the World Space Congress, that had brought together world space leaders to discuss space exploration, space commerce and space applications. The summit continued the cooperation of the Office with the American Institute of Aeronautics and Astronautics.

(b) International space information service

85. The Committee noted with satisfaction that the fourteenth in the series of documents containing selected papers from the activities of the Programme, entitled *Seminars of the United Nations Programme on Space Applications*, had been issued [4].

86. The Committee noted with satisfaction that the Secretariat had continued to enhance the International Space Information Service and the web site of the Office

for Outer Space Affairs (www.oosa.unvienna.org), which contained, among other things, a regularly updated index of objects launched into outer space, information on the status of United Nations treaties governing activities in outer space, a calendar of meetings and activities of the United Nations Programme on Space Applications and documents of the Committee and its subcommittees in all six official languages of the United Nations. The Committee also noted with satisfaction that the Secretariat was maintaining a web site on the coordination of outer space activities within the United Nations system (www.uncosa.unvienna.org).

(c) Regional and interregional cooperation

87. The Committee emphasized the importance of regional and international cooperation in making the benefits of space technology available to all countries by such cooperative activities as sharing payloads, disseminating information on spin-off benefits, ensuring compatibility of space systems and providing access to launch capabilities at reasonable cost.

88. The Committee noted with satisfaction the success of the Fourth Space Conference of the Americas that had been held in Cartagena de Indias, Colombia, from 14 to 17 May 2002. The Conference had discussed mechanisms for cooperation and coordination between countries in the region in various areas of space science and technology, with respect to their applications in areas such as disaster management, tele-education, telemedicine and public health and environmental protection and in fields such as space law and telecommunications. The Committee noted that in 2003 the Office for Outer Space Affairs and the international support group of the Fourth Space Conference of the Americas were providing technical advice to Colombia, acting as the pro tempore secretariat of the Fourth Space Conference of the Americas, in its implementation of the Plan of Action of the Conference. The Committee welcomed the memorandum of understanding between the Office for Outer Space Affairs and the Pro Tempore Secretariat of the Conference, under which the parties demonstrated their intention to collaborate in promoting and implementing joint activities, in particular through the United Nations Programme on Space Applications and in promoting cooperation on projects at the regional level. The Committee also noted the desire of member States in the Latin American and Caribbean region to institutionalize the Space Conference of the Americas.

89. The Committee recalled that the General Assembly, in its resolution 50/27 of 6 December 1995, had endorsed the recommendation of the Committee that the regional centres for space science and technology education be established on the basis of affiliation to the United Nations as early as possible and that such affiliation would provide the centres with the necessary recognition and would strengthen the possibilities of attracting donors and of establishing academic relationships with national and international space-related institutions. In this respect, the Committee noted with satisfaction that the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean had signed a memorandum of understanding with the Office for Outer Space Affairs, through which the Centre had become affiliated to the United Nations.

90. The Committee noted with satisfaction that, since its establishment in 1995, the Centre for Space Science and Technology Education in Asia and the Pacific had held 16 nine-month postgraduate courses: seven courses on remote sensing and GIS,

three courses on satellite communications, three courses on satellite meteorology and global climate and three courses on space and atmospheric science. In 2002/2003, the Centre was offering the following courses: (a) the third nine-month postgraduate course on satellite meteorology and global climate; (b) the third nine-month postgraduate course on space and atmospheric science; and (c) the seventh nine-month postgraduate course on remote sensing and GIS. A total of 180 scholars from 28 countries have benefited from the educational activities of the Centre. The eighth meeting of the Governing Board of the Centre and the fifth meeting of its Advisory Committee were held in Bangalore, India, on 26 and 28 May 2003, respectively. Karl Harmsen of the Netherlands had taken over as the new Director of the Centre in April 2002, at the end of the term of B. L. Deekshatulu, the founding Director. The Committee noted with satisfaction that Kazakhstan had ratified the Agreement of the Centre for Space Science and Technology Education in Asia and the Pacific, meaning that all the original 10 signatories had ratified the Agreement. As per the provisions of the Agreement, its entry into force had been announced by the host country.

91. The Committee noted with appreciation that the Government of China had established the Multilateral Space Cooperation secretariat for the Asia and Pacific Region. The establishment of the secretariat would play a positive role in promoting space technological cooperation in the region.

92. The Committee noted with satisfaction that a nine-month training course on satellite communications had started in November 2002 at the African Regional Centre for Space Science and Technology—in English Language. The Committee also noted that the Centre planned to start nine-month programmes on remote sensing, on basic space sciences and on satellite meteorology from September 2003.

93. The Committee noted with satisfaction that in 2002 the African Regional Centre for Space Science and Technology—in French Language had completed a nine-month course on satellite meteorology and global climate and had started a nine-month training programme on satellite communications.

94. The Committee noted with satisfaction that the first nine-month course on remote sensing and GIS had started in 2003 at the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean at its Brazilian campus. The second meeting of the Governing Board of the Regional Centre had been held in Mexico City on 29 April 2002 and its third meeting in Brasilia on 5 and 6 August 2002.

95. The Committee noted with satisfaction that the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean, Mexico campus, was preparing to start its first course in remote sensing and GIS in late 2003. A meeting was to be held from 16 to 18 July 2003 at the National Institute of Optical and Electronic Astrophysics in Tonantzintla, Puebla, Mexico, to review the model curricula of the United Nations for remote sensing and GIS and to adapt them to meet the needs and expectations of the region.

96. The Committee noted with satisfaction that the Programme was providing technical support to the Government of Jordan in its preparations for the establishment of the regional centre for space science and technology education for Western Asia.

(d) International Satellite System for Search and Rescue

97. The Committee recalled that, at its forty-fourth session, it had agreed that a report on the activities of the International Satellite System for Search and Rescue (COSPAS-SARSAT) should be considered annually by the Committee as a part of its consideration of the United Nations Programme on Space Applications and that member States should report on their activities regarding COSPAS-SARSAT.[5]

98. A presentation on the status of COSPAS-SARSAT was given by K. Vincent (United States).

99. The Committee noted with satisfaction that COSPAS-SARSAT, a cooperative venture initiated in the late 1970s involving Canada, France, the Russian Federation and the United States, was using space technology to assist aviators and mariners in distress around the globe. Since 1982, COSPAS-SARSAT had defined the technical characteristics of emergency beacons to help ensure the use of a single one common standard worldwide. COSPAS-SARSAT had expanded its space segment to include instruments in geostationary orbits that currently provided instantaneous alerts.

100. The Committee noted with satisfaction that COSPAS-SARSAT currently had 34 member States and that its members were from nearly every continent. Those States had helped to develop and implement a robust ground network and alert data distribution system. COSPAS-SARSAT had assisted in the rescue of over 15,000 persons since 1982. The Committee noted that COSPAS-SARSAT was a cooperative venture of great significance from both a political and a practical standpoint.

2. Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment

101. The Committee noted that, in accordance with General Assembly resolution 57/116, the Scientific and Technical Subcommittee had continued its consideration of matters relating to remote sensing of the Earth by satellite. The Committee took note of the discussion of the Subcommittee under that agenda item, as reflected in the report of the Subcommittee (A/AC.105/804, paras. 68-77).

102. A presentation on the remote sensing activities of the International Institute of Applied Systems Analysis (IIASA) was given by S. Nilsson of IIASA.

103. The Committee emphasized the importance of remote sensing technology for sustainable development. In that connection, it also emphasized the importance of providing non-discriminatory access to state of the art remote sensing data and to derived information at reasonable cost and in a timely manner.

104. The Committee further emphasized the importance of building capacity in the adoption and use of remote sensing technology, in particular to meet the needs of developing countries.

3. Use of nuclear power sources in outer space

105. The Committee noted that, in accordance with General Assembly resolution 57/116, the Scientific and Technical Subcommittee had continued its consideration of the item relating to the use of nuclear power sources in outer space.

106. The Committee noted with satisfaction that the Subcommittee, in accordance with the four-year work plan adopted by the Subcommittee at its thirty-fifth session (A/AC.105/697 and Corr.1, annex III, appendix), had considered whether or not to take any additional steps concerning the information in the report entitled "A review of international documents and national processes potentially relevant to the peaceful uses of nuclear power sources in outer space" (A/AC.105/781). The report had been finalized by the Working Group on the Use of Nuclear Power Sources in Outer Space during the thirty-ninth session of the Subcommittee, in 2002.

107. The Committee noted with satisfaction that the Subcommittee had reconvened its Working Group on the Use of Nuclear Power Sources in Outer Space. The Committee noted with satisfaction that the Working Group had also made progress during intersessional informal discussions held in Vienna on 10 June 2003.

108. The Committee also noted with satisfaction that the Subcommittee had adopted a further multi-year work plan on the use of nuclear power sources in outer space, covering the period 2003-2006. The new work plan, for developing an international technically based framework of goals and recommendations for the safety of nuclear power source applications in outer space, was contained in the report of the Subcommittee on its fortieth session (A/AC.105/804, annex III).

109. The Committee agreed that, even if it currently was not necessary to open a discussion with a view to revising the Principles Relevant to the Use of Nuclear Power Sources in Outer Space (General Assembly resolution 47/68), it was important that States making use of nuclear power sources conduct their activities in full accordance with the Principles.

110. The Committee also agreed that the Subcommittee and the Working Group should continue to receive as much input as possible on matters affecting the use of nuclear power sources in outer space and any contribution related to improving the scope and application of the Principles.

111. The view was expressed that nuclear power sources should be used in outer space only on deep space missions or in other cases where their use was unavoidable.

4. Means and mechanisms for strengthening inter-agency cooperation and increasing the use of space applications and services within and among entities of the United Nations system

112. The Committee noted that, in accordance with General Assembly resolution 57/116, the Scientific and Technical Subcommittee had continued to consider an item on means and mechanisms for strengthening inter-agency cooperation and increasing the use of space applications and services within and among entities of the United Nations system. The Committee noted that, in accordance with the three-year work plan adopted by the Subcommittee at its thirty-seventh session (A/AC.105/736, annex II, para. 40), the Subcommittee had developed specific and concrete proposals and action plans for strengthening inter-agency cooperation in the use of outer space within the United Nations system and for increasing the use of space applications and services within the system in general and among particular United Nations entities. The Committee took note of the discussion of the Subcommittee on this item, as reflected in the report of the Subcommittee (A/AC.105/804, paras. 88-96).

113. The Committee noted with satisfaction that the Scientific and Technical Subcommittee had endorsed proposals to strengthen inter-agency cooperation in the use of outer space within the United Nations system, based on recommendations from the Inter-Agency Meeting on Outer Space Activities. Those proposals included: holding a half-day open informal session to which member States of the Committee would be invited to participate, for the purpose of promoting exchange of information between member States of the Committee and the members of the Inter-Agency Meeting; inviting United Nations entities to submit annual reports to the Subcommittee on specific themes; and inviting member States of the Committee to complete a list of space-related initiatives and programmes that they would carry out in response to specific actions recommended in the Plan of Implementation of the World Summit on Sustainable Development. The Committee endorsed those proposals, which were reflected in the report of the Subcommittee (A/AC.105/804, paras. 93-95).

114. The Committee also noted with satisfaction that the Inter-Agency Meeting on Outer Space Activities had held its twenty-third session in Vienna from 22 to 24 January 2003 and that the report of the Inter-Agency Meeting on that session (A/AC.105/791 and Corr.1) and the report of the Secretary-General on the coordination of outer space activities within the United Nations system: programme of work for 2003 and 2004 and future years (A/AC.105/792) were before the Committee.

115. The Committee noted that the twenty-fourth session of the Inter-Agency Meeting would be hosted by the World Meteorological Organization in Geneva in early 2004, before the forty-first session of the Subcommittee.

116. The Committee agreed that the Inter-Agency Meeting should continue to report to the Committee and the Scientific and Technical Subcommittee on its annual session.

5. Implementation of an integrated, space-based global natural disaster management system

117. The Committee noted that, in accordance with General Assembly resolution 57/116, the Scientific and Technical Subcommittee had continued its consideration of an item on implementation of an integrated, space-based global natural disaster management system. The Committee noted that, in accordance with the three-year work plan adopted by the Subcommittee at its thirty-seventh session (A/AC.105/736, annex II, para. 41), the Subcommittee had reviewed possible global operational structures to handle natural disaster management, making maximum use of existing and planned space systems. The Committee took note of the discussion of the Subcommittee on this item, as reflected in the report of the Subcommittee (A/AC.105/804, paras. 97-115).

118. The Committee stressed the importance of operational access to global satellite databases for preventing natural disasters, especially in developing countries, and the need to identify and close gaps in the coverage of remote sensing satellites so that reliable information could be provided to all disaster-affected areas.

119. The Committee noted that the Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological

Disasters had been activated 15 times in 2002, the latest in connection with the earthquake that had struck Algeria on 21 May 2003.

120. The Committee requested the Office for Outer Space Affairs to convene a one-day workshop for industry during its forty-seventh session, in 2004, inviting all major communications satellite operators to participate, presenting the capabilities of their systems and airing their views on how satellite-based communications could be used during natural disasters.

6. Space debris

121. The Committee noted that, in accordance with General Assembly resolution 57/116, the Scientific and Technical Subcommittee had continued its consideration of the item on space debris in accordance with the work plan adopted at its thirty-eighth session (A/AC.105/761, para. 130). The Committee took note of the discussion of the Subcommittee on space debris, as reflected in the report of the Subcommittee (A/AC.105/804, paras. 116-135).

122. The Committee heard a presentation by C. Portelli of Italy, entitled "Space debris: the BeppoSAX experience".

123. The Committee agreed with the Scientific and Technical Subcommittee that consideration of space debris was important, that international cooperation was needed to expand appropriate and affordable strategies to minimize the potential impact of space debris on future space missions and that Member States should pay more attention to the problem of collisions of space objects, including those with nuclear power sources on board, with space debris and to other aspects of space debris (A/AC.105/804, para. 125), in accordance with General Assembly resolution 57/116.

124. The Committee noted with satisfaction that, in accordance with the Subcommittee's work plan on space debris, the Inter-Agency Space Debris Coordination Committee (IADC) had presented its proposals on debris mitigation (A/AC.105/C.1/L.260), based on consensus among the IADC members, at the fortieth session of the Subcommittee. According to its work plan, the Subcommittee had begun its review of the IADC proposals and discussed means of endorsing their utilization.

125. The Committee requested all its member States to study the IADC proposals and to provide their comments to the Office for Outer Space Affairs before the forty-first session of the Subcommittee, in 2004.

126. The Committee agreed that the Subcommittee at its forty-first session, based on the scope of comments received, could establish a working group to consider comments from member States on the IADC proposals and to consider further progress on the subject, including continuing discussions on means of endorsing utilization of the IADC space debris mitigation guidelines (A/AC.105/C.1/L.260, annex).

127. The view was expressed that mitigation of space debris was also complicated by the fact that there was no official information available on which satellites were active and which had already come to the end of their active lives. In the view of that delegation, only launching States could designate a specific object officially inactive and they should be encouraged to announce that change in the status of

their objects under the provisions of the Convention on Registration of Objects Launched into Outer Space (General Assembly resolution 3235 (XXIX), annex).

128. Some delegations noted that changes in the functional status of space objects had been announced in the past, for instance in connection with the decay of the Mir station and the scientific satellite BeppoSAX, and that that approach should be followed by other launching States.

129. The view was expressed that the re-entry of BeppoSAX had demonstrated the need to make the international community more aware of the dangers of space debris and that the Committee and its Scientific and Technical Subcommittee, through their work, could make an important contribution in that area.

130. The view was expressed that there was a need for an international database of national focal points responsible for exchanging information with owners of satellites that were about to re-enter the Earth's atmosphere, in order to understand the real risks involved, and for preparing possible countermeasures in their territories. The database should be continuously updated and should be made available on the web site of the Office for Outer Space Affairs.

7. Examination of the physical nature and technical attributes of the geostationary orbit and of its utilization and applications, including, inter alia, in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries

131. The Committee noted that, in accordance with General Assembly resolution 57/116, the Subcommittee had continued its consideration of the item on the geostationary orbit and space communications as a single issue/item for discussion. The Committee took note of the discussion of the Subcommittee under that agenda item, as reflected in the report of the Subcommittee (A/AC.105/804, paras. 136-144).

8. Mobilization of financial resources to develop capacity in space science and technology applications

132. The Committee noted that, in accordance with General Assembly resolution 57/116, the Subcommittee had considered an item on mobilization of financial resources to develop capacity in space science and technology applications as a single issue/item for discussion. The Committee took note of the discussion of the Subcommittee under that agenda item, as reflected in the report of the Subcommittee (A/AC.105/804, paras. 145-151).

9. The use of space technology for the medical sciences and public health

133. The Committee noted that, in accordance with General Assembly resolution 57/116, the Subcommittee had considered an item on the use of space technology for the medical sciences and public health as a single issue/item for discussion. The Committee took note of the discussion of the Subcommittee under that agenda item, as reflected in the report of the Subcommittee (A/AC.105/804, paras. 152-161).

134. A satellite-based live telemedicine demonstration was presented by O. Koudelka of Austria. The Committee thanked Joanneum Research of Graz, Austria, and the Office for Outer Space Affairs for their efforts in arranging the successful demonstration.

16. Draft provisional agenda for the forty-first session of the Scientific and Technical Subcommittee

135. The Committee noted that, in accordance with General Assembly resolution 57/116, the Scientific and Technical Subcommittee had considered proposals for a draft provisional agenda for its forty-first session. The Subcommittee had endorsed the recommendations of its Working Group of the Whole concerning the draft provisional agenda for the forty-first session of the Subcommittee (A/AC.105/804, paras. 162-163 and annex II).

136. The Committee noted that, during the fortieth session of the Subcommittee (A/AC.105/804, annex II, para. 24), the Working Group of the Whole had recalled that, at the thirty-ninth session, it had agreed that, owing to the limited time available during the fortieth and forty-first sessions of the Subcommittee, in 2003 and 2004, in view of the review by the Subcommittee of the reports of the action teams to implement the recommendations of UNISPACE III, the organization of the symposium by the Committee on Space Research (COSPAR) and the International Astronautical Federation and the symposium to strengthen the partnership with industry should alternate each year. In 2004, the symposium for industry would be organized and the organization of the symposium by COSPAR and the International Astronautical Federation would be suspended.

137. The Committee endorsed the recommendation that the symposium to strengthen the partnership with industry to be held during the first week of the forty-first session of the Subcommittee, in 2004, should address small satellite applications in agriculture, health and human security (A/AC.105/804, annex II, para. 25).

138. The Committee endorsed the recommendation that the Subcommittee should consider an agenda item on space-system-based telemedicine according to the following work plan, starting in 2004:[6]

2004	Presentations by member States on the status of telemedicine applications in general, and space-based telemedicine applications in particular, in use in their countries
	Presentations on commercially available telemedicine systems and their capacity to use space systems by different private industries and research organizations
2005	Presentations on development of electronic biomedical equipment and compatibility with space-based telemedicine systems
	Presentations by specialist organizations such as the World Health Organization on space-based telemedicine systems
	Debate on limitations of space-based telemedicine systems in terms of technical parameters and user acceptability

Debate on ways and means of enhancing the capacity of developing countries to use space-based telemedicine systems, including issues such as access to space segment and training

2006 Presentations on possible bilateral or multilateral projects to develop further space-based telemedicine applications through international cooperation

139. Some delegations expressed the view that the special presentations made to the Scientific and Technical Subcommittee on a wide variety of topics, including those made by representatives of non-governmental entities, were important because they increased the technical content of the deliberations and provided timely information on new developments in space activities.

140. On the basis of the deliberations of the Scientific and Technical Subcommittee at its fortieth session, the Committee agreed on the following draft provisional agenda for the forty-first session of the Scientific and Technical Subcommittee:

1. General exchange of views and introduction to reports submitted on national activities.

2. United Nations Programme on Space Applications.

3. Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III).

4. Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment.

5. Items to be considered under work plans:

   (a) Space debris;

   (Third year of the work plan: IADC continues to present to the Subcommittee its proposals on debris mitigation (as required), based on consensus among IADC members; member States continue to review the IADC proposals on debris mitigation.)[7]

   (b) Use of nuclear power sources in outer space;

   (Work for the year 2004 as reflected in the multi-year work plan contained in annex III of document A/AC.105/804.)

   (c) Space-system-based telemedicine.

   (Presentations by representatives of member States on the status of telemedicine applications in general, and space-based telemedicine applications in particular, in use in their countries; presentations on commercially available telemedicine systems and their capacity to use space systems by different private industries and research organizations.)

6. Single issues/items for discussion:

   (a) Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including,

inter alia, in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries;

(b) Implementation of an integrated, space-based global natural disaster management system;

(c) Solar-terrestrial physics.

7. Draft provisional agenda for the forty-second session of the Scientific and Technical Subcommittee, including identification of subjects to be dealt with as single issues/items for discussion or under multi-year work plans.

8. Report to the Committee on the Peaceful Uses of Outer Space.

D. Report of the Legal Subcommittee on its forty-second session

141. The Committee took note with appreciation of the report of the Legal Subcommittee on its forty-second session (A/AC.105/805), which contained the results of its deliberations on the items assigned to it by the General Assembly in resolution 57/116.

142. The Chairman of the Legal Subcommittee made a statement on the work of the Subcommittee at its forty-second session.

1. Status and application of the five United Nations treaties on outer space

143. The Committee noted that, in accordance with General Assembly resolution 57/116, the Legal Subcommittee had considered the status and application of the five United Nations treaties on outer space as a regular item and had reconvened its working group on the item under the chairmanship of Vassilios Cassapoglou (Greece).

144. The Committee noted that the terms of reference of the working group included the status of the treaties, review of their implementation and obstacles to their universal acceptance, the promotion of space law, especially through the United Nations Programme on Space Applications, review of the application and implementation of the concept of the "launching State", as reflected in the conclusions of the Subcommittee's consideration of the three-year work plan on "Review of the concept of the 'launching State'", as well as any new, similar issues that might be raised in discussions in the working group, provided that those issues fell within the existing mandate of the working group (A/AC.105/805, para. 37).

145. The Committee noted that the Legal Subcommittee had been provided with a report on the current status of signatures and ratifications of the international treaties governing the use of outer space, in accordance with information provided to the Secretariat by the depositaries of those treaties.

146. The Committee welcomed the information provided by some delegations on the current status of and further intended action concerning their accession to or ratification of the five United Nations treaties on outer space. The Committee also

welcomed the reports from member States indicating their progress in developing national space laws.

147. The Committee welcomed the recent accession of Greece to the Convention on Registration of Objects Launched into Outer Space (General Assembly resolution 3235 (XXIX), annex).

148. The Committee agreed that the treaties on outer space had established a framework that had encouraged the exploration of outer space and benefited both space-faring and non-space-faring States and that the Legal Subcommittee should undertake activities that supported the continued vitality of that legal framework.

149. The view was expressed that States that had accepted those instruments should examine their national laws to determine whether they were sufficient to implement them.

150. The view was expressed that member States should be encouraged to ratify, in particular, the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (General Assembly resolution 34/68, annex), as that instrument had a low number of ratifications.

151. Some delegations expressed the view that an important step towards promoting the implementation of the key space law instruments would be for the Committee to increase the number of States parties to those treaties by raising the level of their international acceptance.

152. The Committee recalled that the Legal Subcommittee, at its forty-second session, had received a proposal for a draft resolution, for consideration by the General Assembly, on the application of the legal concept of the "launching State" (A/AC.105/C.2/L.242 and Add.1). The Committee noted that informal consultations on the matter had been conducted jointly by Germany and Greece.

153. The Committee agreed that the Legal Subcommittee should consider, at its forty-third session, the revised text of the proposal for a draft resolution, for consideration by the General Assembly, on the application of the legal concept of the "launching State", as contained in document A/AC.105/L.249.

154. Some delegations supported the adoption by the General Assembly of a resolution on the application of the concept of the "launching State", which would be based on the conclusions of the Legal Subcommittee following the completion of the three-year work plan on the review of the concept of the "launching State" (A/AC.105/787, annex IV, appendix).

155. The view was expressed that emphasis should be placed on existing outer space treaties and that the Legal Subcommittee should consider the application of the concept of the "launching State", taking into account the increasing participation of non-governmental organizations in space activities. That delegation was of the view that the Committee and its Legal Subcommittee should provide more guidance on areas requiring national legislation.

156. The view was expressed that it was important to bring greater clarity and certainty to the application of the concept of the "launching State" and that the proposal for a draft resolution on the subject, for consideration by the General Assembly, could contribute to resolving some uncertainties. However, that delegation was of the view that the proposed draft resolution did not necessarily

bring clarity and certainty in cases where ownership could not easily be determined due to complex financing arrangements, where multiple States were involved or where a space object owned or controlled by a State that was not a party to the Liability Convention was launched from a State party's facility or territory.

157. The view was expressed that the Committee and the General Assembly were not the appropriate bodies to interpret the provisions of the Liability Convention or the Registration Convention. Interpretation of the provisions of the treaties could be undertaken only by conferences of the parties to those conventions.

158. The Committee noted with appreciation that the first United Nations Workshop on Capacity-Building in Space Law, organized by the Secretariat in cooperation with the International Institute of Air and Space Law of the University of Leiden and the Government of the Netherlands, had been held in The Hague from 18 to 21 November 2002. The Committee welcomed the announcement that the next workshop on space law would be hosted by the Republic of Korea and held in Daejeon, Republic of Korea, from 3 to 6 November 2003.

159. The Committee noted the offer made by Greece that the next United Nations workshop on space law could be held in Athens in October and November 2004.

160. The Committee noted that the Legal Subcommittee had agreed that the Office for Outer Space Affairs should compile a directory of institutions teaching space law, based on information provided by institutions such as the National Remote Sensing and Space Law Center of the University of Mississippi School of Law, in the United States, the European Centre for Space Law and the International Centre for Space Law in Kyiv.

161. The Committee noted that the Legal Subcommittee had recommended that institutions included in the directory should participate in an electronic network of institutions teaching international and national space law, which should take advantage of the institutional framework of the regional centres for space science and technology education affiliated to the United Nations and which should be coordinated by Vassilios Cassapoglou (Greece). The network could be organized with regional, subregional and national focal points. Institutions in the network could exchange information on activities to promote capacity-building in international and national space law, especially in developing countries. Those activities might include participation in joint research with institutions in developing countries, the establishment of exchange programmes with such institutions or the provision of information and materials on international and national space law to such institutions.

162. The Committee agreed with the recommendation of the Legal Subcommittee that the regional centres for space science and technology education affiliated to the United Nations should include a basic course on space law in their curricula.

2. Information on the activities of international organizations relating to space law

163. The Committee noted that, in accordance with General Assembly resolution 57/116, the Legal Subcommittee had considered information on the activities of international organizations relating to space law as a regular item.

164. The Committee noted with satisfaction that the Legal Subcommittee had been provided with reports from various international organizations on their activities

relating to space law and endorsed the agreement by the Legal Subcommittee that the Secretariat should again invite international organizations to provide reports to the forty-third session of the Subcommittee, in 2004.

165. The Committee noted that the Group of Experts on the Ethics of Outer Space, invited by the Committee at its forty-fourth session to identify which aspects of the report of the World Commission on the Ethics of Scientific Knowledge and Technology of the United Nations Educational, Scientific and Cultural Organization (UNESCO) might need to be studied by the Committee and to draft a report in consultation with other international organizations and in close liaison with the World Commission,[8] had presented its report to the Legal Subcommittee (A/AC.105/C.2/L.240/Rev.1).

166. The Committee agreed that the report, including its annex, be transmitted to the Director-General of UNESCO with the request that UNESCO keep the Committee and its subcommittees informed about the activities of UNESCO relating to outer space, in the framework of their cooperation, taking into due account their respective competencies.

167. The Committee agreed with the view of the Legal Subcommittee, expressed in paragraph 68 of its report (A/AC.105/805), that the Legal Subcommittee was the primary international forum for the development of international space law and that the entire body of space law developed by the Subcommittee was founded on ethical principles.

168. The Committee noted that the Subcommittee had agreed that the issue of ethics of activities in outer space could continue to be considered under that agenda item.

3. Matters relating to: (a) the definition and delimitation of outer space; and (b) the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union

169. The Committee noted that, in accordance with General Assembly resolution 57/116, the Legal Subcommittee had continued to consider as a regular item matters relating to: (a) the definition and delimitation of outer space; and (b) the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union.

170. The Committee noted that the working group on this item had been re-established under the chairmanship of Taous Feroukhi (Algeria) to consider only matters relating to the definition and delimitation of outer space, in accordance with the agreement reached at the thirty-ninth session of the Legal Subcommittee and endorsed by the Committee at its forty-third session.

171. The view was expressed that advances in space science and technology and the commercialization of space made it necessary to define and delimit outer space and it would be appropriate to delimit outer space at 100-110 km above sea level. That delegation was also of the view that a serious discussion on the definition and delimitation of outer space could take place at such time as a specific need and practical basis emerged.

172. The view was expressed that the replies to the questionnaire on possible legal issues with regard to aerospace objects should be examined carefully by the Legal Subcommittee as they could constitute a good basis for discussions with a view to finding comprehensive solutions to the problems of the definition and delimitation of outer space.

173. Some delegations reiterated the view that the geostationary orbit was a limited natural resource with sui generis characteristics that risked saturation and that its utilization should be based on the principle of rational and equitable access for all countries, taking into account the special needs of developing countries and the geographical position of certain countries.

174. The view was expressed that the geostationary orbit constituted an integral part of outer space. That delegation was of the view that the geostationary orbit was a unique international resource and that equitable access to the geostationary orbit should be guaranteed to all States, taking into account the needs of developing countries.

175. The view was expressed that the agreement reached by the Subcommittee at its thirty-ninth session on the question of the character and utilization of the geostationary orbit (A/AC.105/738, annex III) was an important basis for promoting international cooperation to ensure that the principle of equity would be applied and that all States would have access to the geostationary orbit.

176. Some delegations expressed the view that it was important for the Committee and its subcommittees to continue its consideration of the character and utilization of the geostationary orbit with a view to achieving consensus.

4. Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space

177. The Committee noted that, in accordance with General Assembly resolution 57/116, the Legal Subcommittee had continued its consideration of the review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space as a single issue/item for discussion.

178. The Committee noted that an exchange of views had taken place in the Legal Subcommittee on the review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space, as reflected in its report (A/AC.105/805, paras. 97-104), in which reference was made to the work currently being undertaken by the Scientific and Technical Subcommittee under the item entitled "Use of nuclear power sources in outer space".

5. Examination of the preliminary draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment (opened for signature in Cape Town on 16 November 2001)

179. The Committee noted that, in accordance with General Assembly resolution 57/116, the Legal Subcommittee had considered a single issue/item for discussion entitled "Examination of the preliminary draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment (opened for signature in Cape Town on 16 November 2001)".

180. The Committee noted that, in accordance with resolution 57/116, the Legal Subcommittee had considered two sub-items under that agenda item:

(a) Considerations relating to the possibility of the United Nations serving as supervisory authority under the preliminary draft protocol;

(b) Considerations relating to the relationship between the terms of the preliminary draft protocol and the rights and obligations of States under the legal regime applicable to outer space.

181. The Committee noted that, in accordance with resolution 57/116, the Legal Subcommittee had established a working group on that item. The chairman of the working group was Sergio Marchisio (Italy).

182. The Committee noted that the Legal Subcommittee had considered the report of the Secretariat on considerations relating to the possibility of the United Nations serving as supervisory authority under the protocol (A/AC.105/C.2/L.238) which had been prepared in consultation with the United Nations Legal Counsel.

183. The Committee noted that the first session of an International Institute for the Unification of Private Law (Unidroit) committee of governmental experts for the consideration of the preliminary draft protocol would be held in Rome from 15 to 19 December 2003 and that in addition to member States, all member States of the Committee and the Office for Outer Space Affairs would be invited to attend the session.

184. Some delegations expressed the view that the Convention on International Interests in Mobile Equipment and a protocol on matters specific to space assets would contribute to the expansion of space activities of developing countries, as well as developed countries, by reducing the financial risks and burdens arising from such an increase in space activities.

185. The view was expressed that the adoption of the Convention on International Interests in Mobile Equipment and a protocol on matters specific to space assets appeared to be more in the interest of financing agencies than in the interest of assisting developing countries in financing space activities.

186. Some delegations expressed the view that it was important to continue to consider carefully the possibility of the United Nations serving as supervisory authority, taking into account the following: the present mandate and current activities of the United Nations; the need to avoid any risk of the United Nations incurring liability for damages; the fact that no additional financial burden should be placed on the United Nations; and the lack of practical experience of the United Nations in fulfilling such functions.

187. Some delegations expressed the view that it would be useful to continue to study the practical experiences of the International Civil Aviation Organization in its role as Supervisory Authority under the Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Aircraft Equipment before taking a final decision concerning the role of the United Nations under a future protocol on space assets.

188. Some delegations expressed the view that the United Nations was, in principle, the most appropriate organization to exercise the functions of supervisory authority and that for the United Nations to carry out those functions would be fully

consistent with the interests of both developed and developing countries. Those delegations were of the view that, by serving as the supervisory authority, the United Nations could ensure an international institutional framework for the registration system.

189. Some delegations expressed the view that it would be inappropriate for the United Nations to take up the functions of supervisory authority as those functions were beyond the mandate of the United Nations, especially the General Assembly.

190. The view was expressed that there would be no conflict with the Charter of the United Nations if the United Nations were to assume the role of supervisory authority.

191. The view was expressed that member States could address the interests of their national entities and the financing organizations by enacting national legislation and through existing international commercial practices. That delegation was of the view that one of the international trade organizations or any international banking organization would be best suited to serve as the supervisory authority.

192. The view was expressed that other options, including the establishment of a supervisory authority consisting of States parties to the Convention, should be actively pursued.

193. Some delegations reiterated the view that the Convention and the protocol should neither undermine nor compromise existing principles of international space law and that, in case of conflict, the existing principles should prevail.

194. In that respect, the view was expressed that provisions should be included both in the preamble and elsewhere in the protocol in order to ensure its compatibility with the United Nations treaties on outer space.

195. The view was expressed that the protocol on matters specific to space assets and the existing United Nations treaties on outer space could be compatible if, during the drafting of the protocol, areas of possible conflict were thoroughly and carefully considered.

6. Draft provisional agenda for the forty-third session of the Legal Subcommittee

196. The Committee noted that, in accordance with General Assembly resolution 57/116, the Legal Subcommittee had considered an item entitled "Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its forty-third session".

197. The Committee noted that an exchange of views had taken place in the Legal Subcommittee on numerous proposals by member States for new agenda items and that agreement had been reached on a proposal to the Committee for the agenda of the forty-third session of the Subcommittee, in 2004, as reflected in its report (A/AC.105/805, paras. 135-154).

198. The Committee noted that during the forty-second session of the Legal Subcommittee, informal consultations, coordinated by Niklas Hedman (Sweden), had been held with a view to reaching agreement on the various proposals before the Subcommittee for consideration under the agenda item.

199. The Committee welcomed the agreement by the Legal Subcommittee to begin, on the basis of the working paper submitted by Australia, Austria, Canada, the Czech Republic, France, Germany, Greece, India, Japan, the Netherlands, Sweden, Ukraine, the United Kingdom and the United States (A/AC.105/C.2/L.241 and Add.1), consideration of a new agenda item entitled "Practice of States and international organizations in registering space objects" under the following four-year work plan:

2004	Presentation by member States and international organizations of reports on their practice in registering space objects and submitting the required information to the Office for Outer Space Affairs for inclusion on the Register
2005	Examination by a working group of the reports submitted by member States and international organizations in 2004
2006	Identification by the working group of common practices and drafting of recommendations for enhancing adherence to the Registration Convention
2007	Report to the Committee on the Peaceful Uses of Outer Space

The Committee took note that the Legal Subcommittee had agreed that a working group would be established to consider that item in 2005 and 2006.

200. The Committee agreed that, in addition to reports, member States could make presentations at the forty-third session of the Legal Subcommittee on their practices in registering space objects. The Committee also agreed that the Office for Outer Space Affairs should make a presentation on the Register of Objects Launched into Outer Space.

201. The Committee welcomed the agreement by the Subcommittee to consider a new agenda item entitled "Contributions by the Legal Subcommittee to the Committee on the Peaceful Uses of Outer Space for the preparation of its report to the General Assembly for its review of the progress made in the implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III)" as a single issue/item for discussion.

202. Some delegations expressed the view that discussion on the development of an international convention on remote sensing, as proposed by Argentina, Brazil, Chile, Colombia, Cuba, Ecuador, Greece, Mexico and Peru at the forty-second session of the Legal Subcommittee, was necessary in order to update the Principles Relating to Remote Sensing of the Earth from Outer Space (General Assembly resolution 41/65, annex) and to take into account emerging issues in that field, especially those resulting from the increasing participation of the private sector in remote sensing activities and the recommendations of UNISPACE III.

203. The view was expressed that it was not necessary to update the Principles, as they were operating well and, given the current problems faced by the global satellite industry, it would not be advisable to open a discussion on an international regulatory regime for which no need had been demonstrated.

204. Some delegations expressed the view that the Legal Subcommittee should consider the appropriateness and desirability of drafting a universal comprehensive

convention on international space law. Those delegations expressed the view that discussion of such a convention would allow the international community to consider in a unified manner a number of issues resulting from new developments in space activities, as well as possible lacunae in the international space law system. Those delegations also noted that, under the proposed agenda item, the Subcommittee would only discuss the appropriateness and desirability of drafting a universal comprehensive convention and that the development of the convention would not reopen the debate on existing principles of international space law contained in the United Nations treaties on outer space. A universal comprehensive convention would help to close the gaps within the current international space law system without undermining the existing treaties.

205. Some delegations expressed the view that key space law instruments had established a framework that had encouraged the exploration of outer space and benefited both space-faring and non-space-faring countries and that to entertain the possibility of the negotiation of a new, comprehensive space law instrument would only undermine the principles of the existing space law regime.

206. The Committee recalled that the Legal Subcommittee had considered a proposal by France, supported by member and cooperating States of ESA, for the Subcommittee to consider including on its agenda a four-year work plan on the legal implications of the IADC space debris mitigation guidelines, covering the period 2005-2008.

207. The view was expressed that the IADC space debris mitigation guidelines should be submitted to the Legal Subcommittee and considered by the Subcommittee in 2005.

208. The view was expressed that it was premature for the Legal Subcommittee to consider legal aspects of space debris as the IADC space debris mitigation guidelines were preliminary and still needed to be carefully examined by States.

209. On the basis of the deliberations of the Legal Subcommittee at its forty-second session, the Committee agreed on the following draft provisional agenda for the forty-third session of the Legal Subcommittee, in 2004:

Regular items

1. Opening of the session, election of the Chairman and adoption of the agenda.
2. Statement by the Chairman.
3. General exchange of views.
4. Status and application of the five United Nations treaties on outer space.
5. Information on the activities of international organizations relating to space law.
6. Matters relating to:
   (a) The definition and delimitation of outer space;
   (b) The character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and

equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union.

Single issues/items for discussion

7. Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space.

8. Examination of the preliminary draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment (opened for signature in Cape Town on 16 November 2001):

   (a) Considerations relating to the possibility of the United Nations serving as supervisory authority under the preliminary draft protocol;

   (b) Considerations relating to the relationship between the terms of the preliminary draft protocol and the rights and obligations of States under the legal regime applicable to outer space.

9. Contributions by the Legal Subcommittee to the Committee on the Peaceful Uses of Outer Space for the preparation of its report to the General Assembly for its review of the progress made in the implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III).

Agenda items considered under work plans

10. Practice of States and international organizations in registering space objects.

    (Presentation by Member States and international organizations of reports on their practice in registering space objects and submitting the required information to the Office for Outer Space Affairs for inclusion in the Register)

New item

11. Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its forty-fourth session.

E. Spin-off benefits of space technology: review of current status

210. In accordance with paragraph 43 of General Assembly resolution 57/116, the Committee resumed its consideration of the item entitled "Spin-off benefits of space technology: review of current status".

211. The publication *Spinoff 2002*, submitted by the National Aeronautics and Space Administration of the United States, was made available to the Committee.

212. The Committee agreed that spin-offs of space technology were yielding many substantial benefits. It noted the efforts of numerous countries to promote spin-off

benefits and to disseminate information on the subject to other interested countries. The Committee noted the importance of promoting the newer spin-offs of research and development activity in order to increase awareness of the importance of space activities among users and decision makers and to obtain the necessary support for developing and maintaining space programmes. The Committee also noted that utilization of space technology had become an efficient way to advance economic development, especially in developing countries.

213. In the field of agriculture, the Committee noted that microgravity research was of great importance in breeding varieties of crops such as rice and oil crops with increased yield and vitamin content. For example, scientists had used space research to develop a new breed of fungus that had formed the basis for a new range of health foods, including products to regulate cholesterol level, blood sugar and blood pressure. Space research was also being used to develop crops that could be grown under harsh conditions such as drought, salinity and alkalinity.

214. In the field of medical research, the Committee took note of an early assessment system for osteoporosis, using "camera-on-a-chip" sensor technology. The system allowed physicians to assess bone density and future fracture risk in a fraction of the time required for traditional osteoporosis tests, and testing could be carried out at a peripheral site, such as the finger, as opposed to traditional tests on the hip and spine. The Committee also took note of work to miniaturize eye-tracking devices, enabling people with severely limited movement and speech to communicate and control their environment using only their eye movements; the reduction of the size and weight of the devices not only increased portability but also improved energy efficiency.

215. In the field of transportation safety, the Committee took note of an "infra-hot-box" detection system to prevent train accidents caused by overheated axles. The system was based on technologies developed for satellite infrared remote sensing, artificial intelligence and information processing. The Committee also took note of a new, low-cost ballistic parachute system under which an attached aircraft could float to the ground in the event of an emergency; the system had already saved 148 lives.

216. In the field of the environment and resource management, the Committee noted a process to facilitate the removal of dangerous impurities—ammonium perchlorate and nitrate—from water. The system had been developed by a company that had earlier developed a water purification system for the International Space Station and an air purifier for future Moon base and Mars missions. The Committee also noted that another water purification system using nitrifying agents, developed for closed environments in space, was currently being used for water purification in aquaria.

217. In the field of public safety, the Committee noted a smoke escape hood and filtration system to protect the public from injury and death from smoke inhalation. The products used a catalyst that converted carbon monoxide to non-toxic carbon dioxide at room temperature and could produce breathable air for 20 minutes. The innovation had been initially developed for research involving carbon dioxide lasers.

218. The Committee noted that thermal insulation technologies developed for launch vehicles, as well as heat-proof technologies developed for a space orbital plane, were being applied to facilities on the ground.

219. The Committee noted the application of satellite resistor technologies in international underseas telephone cables.

220. The Committee noted that satellite Earth observation was becoming an increasingly important technology in fields such as environmental monitoring, rural and urban property evaluation, natural resource management and agriculture. The Committee noted the important work being carried out by the regional centres for space science and technology education, affiliated to the United Nations, to increase the capacity of developing countries to apply that technology.

221. The Committee took note of the Digital Map Archive, an online system presenting geographical information from databases over the Internet and allowing aid to be provided more effectively in crisis situations. The Committee also took note of activities that had utilized information derived from remote sensing to combat the flooding in Europe in 2002, as well as initiatives to improve flood forecasts and early warning using space images.

222. The Committee took note of efforts to use satellite communications for the benefit of rural populations, such as distance education and connecting populations in remote areas to the World Wide Web through satellite links.

223. The Committee recommended that it should continue its consideration of the item at its forty-seventh session, in 2004.

F. Space and society

224. In accordance with General Assembly resolution 57/116, the Committee continued to consider an item entitled "Space and society".

225. The Committee heard the following:

(a) Presentation entitled "Japanese space activities" by K. Tanabe and T. Oida of Japan;

(b) Presentation entitled "Improving life for all humankind" by E. Pulham of the United States;

(c) Presentation entitled "The Space Education Project of UNESCO" by Y. Berenguer of UNESCO.

226. The Committee noted that outer space influenced society in many ways. Services from outer space, such as remote sensing, telecommunications and navigation systems, were improving the lives of people throughout the world and helping to create a global society. The Committee noted important applications of space technology in many fields, such as distance education, weather forecasting, forecasting of agricultural yields, disaster management, transport, public safety and many others. Microgravity experiments were allowing biology and other sciences to be explored in ways not possible on Earth.

227. The Committee noted that space applications and technologies developed in connection with space exploration could help bridge gaps in society, including gaps between the educated and illiterate, urban and rural populations and gaps in connectivity between countries, both developed and developing. It was possible for developing countries to leapfrog stages of development by using space products and services. Space endeavours also helped to promote a culture of international cooperation.

228. The Committee noted that research and exploration in outer space were addressing fundamental scientific questions and were a source of inspiration for people in all countries. The first pictures of Earth from outer space had also profoundly changed people's view of the planet, giving them a better perspective and greater appreciation of the global environment.

229. The Committee noted that it was important to communicate the benefits of space to society and help raise the public's awareness of the benefits that space programmes could make to their daily lives.

230. The Committee noted that outer space was an important theme in all cultures and inspired art, music, film and literature.

231. The Committee noted that outer space was a theme that could attract children to science and mathematics and could increase the number of professionals entering those fields. Space applications also played an important role in enhancing educational opportunities, for example through satellite-based tele-education and electronic learning (e-learning). The Committee stressed the importance of education in space science and engineering in strengthening the capabilities of countries in the fields of science and industry.

232. The view was expressed that education in space science and technology should be considered a primary goal of global space programmes to avoid shortages of scientists and engineers. In addition, the migration of space professionals to a few developed countries could have the side effect of reducing the global space market. That delegation expressed the opinion that the Committee should consider making appropriate recommendations to member States on that issue. For instance, the participation of countries with lower space technology potential in international space missions and projects could be recommended as a way of building global capacity.

233. The Committee noted the contribution being made by regional centres for space science and technology education, established on the basis of affiliation with the United Nations in Africa, in Asia and the Pacific and in Latin America and the Caribbean. The Committee also took note of other important initiatives to promote space science and technology education at the national and regional levels.

234. The Committee noted with satisfaction activities of the Space Generation Advisory Council promoting the participation of young people in space activities.

235. The Committee noted that World Space Week, observed each year from 4 to 10 October pursuant to General Assembly resolution 54/68 of 6 December 1999, was a good opportunity to raise awareness about outer space, in particular among young people.

236. The Committee took note of several national educational initiatives, including the educational television channel of India, Gyandarshan; the "Educator Astronaut" programme of the National Aeronautics and Space Administration of the United States, in which teachers could become permanent members of the astronaut corps and anyone in the world could participate by joining the web-based "Earth crew", through which they could learn about space exploration and its benefits and take on mission-related assignments; the Global Learning and Observations to Benefit the Environment (GLOBE) programme, an environmental science and education programme in which 102 countries were participating; the "School Lab" programme of Germany, in which scientists were teaching young people to perform experiments with technical equipment far too expensive and difficult to maintain in schools; an annual essay contest and a summer space camp for young people organized by the Hungarian Astronautical Society; space camps and tele-education programmes in Chile; World Space Week events organized by the Space and Upper Atmosphere Research Commission of Pakistan; and activities of space camps, summer schools and space teacher training colleges in Japan.

237. The Committee noted that the Japan Aerospace Exploration Agency (JAXA) would soon be formed by the merging of the Institute of Space and Astronautical Science, the National Aerospace Laboratory and the National Space Development Agency of Japan. The creation of JAXA would increase the country's contribution to efforts to utilize space to benefit society.

238. The Committee noted that a seminar on space and society in the context of Latin America would be organized by the Chilean Space Agency and co-sponsored by the Office for Outer Space Affairs at the International Air and Space Fair (FIDAE 2004), to be held in Santiago from 29 March to 4 April 2004.

239. Based on a proposal submitted by Colombia (A/AC.105/2003/CRP.14), the Committee agreed to continue its consideration of the item entitled "Space and society" in future years. "Space and education" was selected as a special theme for the focus of discussions for the period 2004-2006, in accordance with the following work plan:

2004 "Space in education and education in space"

Presentations by member States and intergovernmental and non-governmental entities on their efforts (a) to bring space into education and (b) to develop human resources in space science and technology and to ensure the availability of professionals in space-related areas for the future

Identification of elements of success

Identification of impediments to efforts to incorporate outer space into education and to develop human resources in space-related areas

Discussion on possible solutions to eliminate those impediments

Development of a plan of action, including the possible implementation of small projects

2005 "Space tools for education"

Presentations by member States and intergovernmental and non-governmental entities on the latest developments in space applications to enhance educational opportunities, in particular for women and girls

Examination of the availability and affordability of space-based services and systems for providing educational opportunities in developing countries

Identification of ways in which space can benefit medicine in rural areas

Identification of possible impediments to expanding the use of such space-based services and systems in developing countries

Discussion on possible solutions to eliminate those impediments, giving particular attention to programmes in developing countries

Development of a plan of action, including possible implementation of small projects

2006 Conclusion of the work plan

Development of specific, concrete action plans for incorporating outer space into education, enhancing education in space, expanding space tools for education and ensuring that space-based services contribute to the achievement of the Millennium Development Goal on access to education

Preparation of a brief document by the Committee on the Peaceful Uses of Outer Space on the role of space in education, as well as the link between space and education, for transmission to the General Conference of the United Nations Educational, Scientific and Cultural Organization

240. The Committee requested the Office for Outer Space Affairs to invite organizations having permanent observer status with the Committee, as well as the action teams on UNISPACE III recommendations 9, 17 and 18, to contribute to the work plan, for instance by giving presentations on their activities, distributing materials and providing suggestions on how the Committee should address the issues to be considered.

G. Other matters

1. Composition of the bureaux of the Committee and its subsidiary bodies for the term starting in 2004

241. In accordance with the agreement reached during the intersessional informal consultations on the composition of the bureaux of the Committee and its subcommittees, contained in annex II to the present report, the Committee agreed upon the following officers for the bureaux of the Committee on the Peaceful Uses of Outer Space and its Subcommittees for 2004 and 2005:

Committee on the Peaceful Uses of Outer Space

Chairman: Adigun Ade Abiodun (Nigeria)
First Vice-Chairman: Ciro Arévalo Yepes (Colombia)
Second Vice-Chairman/Rapporteur: Parviz Tarikhi (Islamic Republic of Iran)

Scientific and Technical Subcommittee

Chairman: Dumitru Dorin Prunariu (Romania)

Legal Subcommittee

Chairman: Sergio Marchisio (Italy)

2. Membership of the Committee

242. In accordance with General Assembly resolution 57/116, the Committee considered the application of the Libyan Arab Jamahiriya for membership in the Committee.

243. The Committee welcomed the interest of the Libyan Arab Jamahiriya in membership in the Committee and noted that, in accordance with established procedures, member States needed to consider the geographical distribution of the membership of the Committee and that consultations would be necessary among the regional groups before a decision could be taken on the application of the Libyan Arab Jamahiriya.

244. The Committee noted that interested States could continue to participate in the work of the Committee as observers.

3. Observer status

245. The Committee noted that the Regional Centre for Remote Sensing of the North African States (CRTEAN), an intergovernmental organization, and the International Institute for Applied Systems Analysis (IIASA), a non-governmental organization in consultative status with the Economic and Social Council, had applied for observer status with the Committee and that the related correspondence and statutes of these entities had been made available during the present session of the Committee (A/AC.105/2003/CRP.4).

246. The Committee decided to grant permanent observer status to CRTEAN and IIASA.

4. New item on the agenda of the Committee

247. The Committee had before it a proposal by Austria for the inclusion of a new agenda item entitled "Space and water" in the agenda of the Committee (A/AC.105/2003/CRP.18).

248. The Committee agreed that the item should be included on the agenda of the Committee for its forty-seventh session. On the basis of the work accomplished and progress made in 2004, the Committee would decide at that session whether to continue to include that item on its agenda.

5. Proposed programme budget for the biennium 2004-2005

249. The Committee had before it the proposed programme budget for the biennium 2004-2005 (A/58/6 (Sect. 6)).

250. The Committee noted with satisfaction that the proposed programme of work of the Office for Outer Space Affairs included the activities that had been recommended by the Committee and its subsidiary bodies.

H. Schedule of work of the Committee and its subsidiary bodies

251. The Committee agreed on the following tentative timetable for its session and those of its subcommittees in 2004:

	Date	*Location*
Scientific and Technical Subcommittee	16-27 February 2004	Vienna
Legal Subcommittee	29 March-8 April 2004	Vienna
Committee on the Peaceful Uses of Outer Space	2-11 June 2004	Vienna

Notes

[1] *Official Records of the General Assembly, Fifty-seventh Session, Supplement No. 20* (A/57/20), para. 209.

[2] Ibid., *Fifty-second Session, Supplement No. 20* (A/52/20), annex I, para. 2.

[3] *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002* (United Nations publication, Sales No. E.03.II.A.1), chap. I, resolution 2.

[4] United Nations publication, Sales No. E.03.I.9.

[5] *Official Records of the General Assembly, Fifty-sixth Session, Supplement No. 20* and corrigendum (A/56/20 and Corr.1), para. 220.

[6] See document A/AC.105/804, annex II, para. 23.

[7] A/AC.105/761, para. 130.

[8] *Official Records of the General Assembly, Fifty-sixth Session, Supplement No. 20* and corrigendum (A/56/20 and Corr.1), para. 225.

Annex I

Report of the working group established to prepare a report for submission to the General Assembly at its fifty-ninth session for the review of the progress made in the implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III)

1. At its 503rd meeting, on 11 June 2003, the Committee on the Peaceful Uses of Outer Space reconvened the working group established to prepare a report for submission to the General Assembly at its fifty-ninth session for the review of the progress made in the implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III), in accordance with paragraph 28 of General Assembly resolution 57/116 of 11 December 2002. At the same meeting, Niklas Hedman (Sweden) was elected Chairman of the working group.

2. The working group held 10 meetings, from 12 to 20 June 2003. At the 1st meeting of the working group, on 12 June 2003, the Chairman, in his opening remarks, reviewed the mandate of the working group. At its 10th meeting, on 20 June, the working group adopted the present report.

Review of the input provided by the action teams for the report to the General Assembly

3. The working group had before it a compilation of input from the action teams established by the Committee at its forty-fourth session for the report on progress made in the implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III) (A/AC.105/L.247 and A/AC.105/2003/CRP.9). The working group noted that the action teams had provided input in accordance with the template developed by the Working Group of the Whole during the fortieth session of the Scientific and Technical Subcommittee (A/AC.105/804, annex II, para. 15 and appendix I). The working group noted that the Action Team on Sustainable Development, established with a view to the implementation of recommendation 11 of UNISPACE III, and the Action Team on Innovative Sources of Funding, established with a view to the implementation of recommendation 32, had submitted their final reports (A/AC.105/C.1/L.264 and A/AC.105/L.246, respectively), in accordance with the work plans that they had submitted to the Scientific and Technical Subcommittee at its thirty-ninth session.

4. The working group noted the progress made by the action teams. The working group agreed that the action teams should be invited to submit updated or revised input as they made further progress in their work.

5. Having reviewed the recommendations from the action teams as contained in the compilation of their input mentioned above, the working group agreed that there

should be a set of criteria for selecting recommendations for inclusion in the report to the General Assembly. The working group agreed upon the following criteria:

(a) Objectives to be achieved by implementing the recommendations should be specific, feasible and measurable;

(b) Recommendations should be actionable;

(c) Recommendations should have the active support of members of the action team in order to foster their early implementation;

(d) Impediments to the implementation of the recommendations should be removable;

(e) The implementation of the recommendations should make possible the achievement of significant milestones within five years of the commencement of the implementation.

6. With regard to the third criterion, listed in paragraph 5 (c) above, the working group noted the low level of participation by members of some action teams, which could hamper the efforts of those action teams to propose recommendations for inclusion in the report to the General Assembly. The working group therefore urged all members of the action teams to actively participate in and contribute to the work.

Review of the input provided by entities of the United Nations system, intergovernmental and non-governmental organizations having permanent observer status with the Committee on the Peaceful Uses of Outer Space and space-related regional entities

7. The working group had before it a compilation of contributions (A/AC.105/2003/CRP.6) from entities of the United Nations system, intergovernmental and non-governmental organizations having permanent observer status with the Committee on the Peaceful Uses of Outer Space and the space-related regional entities that had been invited to provide input for the report (A/AC.105/804, annex II, para. 18). The input had been provided by those entities in accordance with the guidelines developed by the Working Group of the Whole during the fortieth session of the Scientific and Technical Subcommittee (A/AC.105/804, annex II, para. 20 and appendix II). The working group noted with regret that not all organizations having permanent observer status with the Committee had responded to the invitation to provide input for the report in accordance with the guidelines.[a]

8. With regard to the initiatives, programmes or projects undertaken by those organizations that would complement the implementation of the recommendations of UNISPACE III for which action teams had been established, the working group noted that some action teams had already taken into account relevant input from those organizations in developing recommendations. The working group encouraged interaction between the action teams and those organizations with initiatives, programmes or projects that could benefit the work of the action teams in making further progress.

Review of the recommendations of the Scientific and Technical Subcommittee at its fortieth session

9. The working group noted that the Scientific and Technical Subcommittee, at its fortieth session, had had before it a summary of the implementation of the recommendations of UNISPACE III that had indicated which agenda item of the Committee and its subsidiary bodies had relevance to which recommendation of UNISPACE III (A/AC.105/C.1/L.262, annex I). The working group noted that the information contained in the summary and the additional input provided by the Subcommittee at that session (A/AC.105/804, annex II, para. 16) was sufficient to begin drafting the report to the General Assembly on the achievements of the Committee and its subsidiary bodies through consideration of their agenda items.

10. The working group noted the agreement of the Subcommittee that the recommendations resulting from the United Nations Millennium Summit, held in New York from 6 to 8 September 2000, the World Summit on Sustainable Development, held in Johannesburg, South Africa, from 26 August to 4 September 2002 and the World Summit on the Information Society, to be held in Geneva from 10 to 12 December 2003, should be correlated with specific recommendations of UNISPACE III (A/AC.105/804, annex II, para. 17). The working group agreed that the members of the Committee should be invited to provide their comments, if any, on a document, to be prepared by the Office for Outer Space Affairs, correlating the recommendations of UNISPACE III with those contained in the Plan of Implementation of the World Summit on Sustainable Development[b] and the goals of the United Nations Millennium Declaration (General Assembly resolution 55/2).

Recommendations of the Legal Subcommittee at its forty-second session

11. The working group noted that the Legal Subcommittee had agreed to consider at its forty-third session, in 2004, contributions to the Committee for the preparation of the report of the latter to the General Assembly. The working group also noted that during the intersessional period members of the Legal Subcommittee and organizations having permanent observer status with the Committee that had participated in the Subcommittee would be invited to provide input concerning the achievements of the Legal Subcommittee and any difficulties it had experienced in advancing its work, as well as suggestions for possible solutions.

Draft outline of the report

12. The working group reviewed the indicative, preliminary draft outline of the report, as agreed upon during the forty-fifth session of the Committee.[c] The working group finalized the outline as follows:

Summary

I. Background and results of UNISPACE III

II. Mechanisms for implementing the recommendations of UNISPACE III

III. Progress achieved in implementing recommendations

A. Progress made by the Committee and its subsidiary bodies, including action teams

B. Progress achieved by national and regional efforts

C. Activities of the entities of the United Nations system that contributed to the implementation of recommendations of UNISPACE III

D. Activities of intergovernmental and non-governmental organizations that contributed to the implementation of recommendations of UNISPACE III

IV. Synergies between the implementation of the recommendations of UNISPACE III and the results of global conferences held within the United Nations system and other global initiatives

V. Assessment of the implementation process of the recommendations of UNISPACE III

A. Recommendations of UNISPACE III on which progress has been made

B. Identification of challenges to the implementation of the recommendations of UNISPACE III

C. Recommendations of UNISPACE III that are still to be addressed

D. Emerging issues following UNISPACE III

E. Funding

VI. The way ahead

A. Action to be taken by the Committee and its subsidiary bodies

B. Action to be taken by the Office for Outer Space Affairs and, if necessary, other units of the Secretariat

C. Recommendations to other entities of the United Nations system

D. Suggestions to intergovernmental and non-governmental organizations

E. Suggestions for ways and means to strengthen international cooperation, including at the regional and subregional levels, in implementing the recommendations of UNISPACE III, including consideration of possible new mechanisms for cooperation

Annexes

I. Summary of implementation of the recommendations of UNISPACE III

II. Achievements of the Committee on the Peaceful Uses of Outer Space and its subsidiary bodies through consideration of agenda items introduced via the revised agenda structure

III. Compilation of input provided by the action teams using the template

IV. List of reference documents

13. The working group was provided with a draft list of elements to be included in the report. The working group noted that the draft list had been prepared for the purpose of providing guidelines for drafting the report. The working group agreed that a draft of the report would be prepared in accordance with the draft list of elements reviewed and modified by the working group (A/AC.105/2003/CRP.15 and Corr.1 and 2).

14. The working group recognized the importance of the summary of the report. The working group agreed that the summary should indicate a few areas of significant achievement in the implementation of the recommendations of UNISPACE III and include a summary of recommendations for further action and the rationale behind them. The working group agreed that a small drafting group should be established to prepare the summary.

15. Concerning section II, the working group agreed that the purpose of the section should be to inform the General Assembly of implementation mechanisms within as well as outside the Committee and its secretariat. The working group also agreed that the focus should be on mechanisms and not on specific activities.

16. With respect to subsection B of section III, while the working group recalled that member States had the primary role and responsibility in implementing the recommendations of UNISPACE III, it recognized that subsection B could not include a comprehensive and exhaustive account of national efforts without making the report less focused. The working group therefore agreed that in subsection B reference would be made to annual national reports submitted by member States to the Scientific and Technical Subcommittee. The working group also agreed that the national reports to be prepared for the next session of the Subcommittee could focus on new mechanisms and initiatives implemented by member States in response to the recommendations of UNISPACE III.

17. The working group agreed that subsection D of section III should also not include a comprehensive account of activities of intergovernmental and non-governmental organizations in response to the recommendations of UNISPACE III. The working group therefore agreed that a short text should be drafted taking into consideration the input provided by the organizations having permanent observer status with the Committee and that subsection D would include reference to reports of organizations on their activities in response to the recommendations of UNISPACE III. The working group agreed that the organizations having permanent observer status with the Committee should be invited to submit such reports.

18. Regarding subsection C of section V, the working group agreed that there was a need to further consider recommendations that might require further action or might be considered no longer valid. The working group agreed that a survey should be conducted among member States to indicate the level of priority given to the recommendations that were still to be addressed. The survey could be conducted in a manner similar to that carried out in March 2001, which had led to the establishment of action teams at the forty-fourth session of the Committee.

19. The working group agreed that the report to the General Assembly would have an annex with a list of references (see paras. 16 and 17 above).

Timetable for preparing the report

20. The working group agreed upon the following timetable for preparing the report:

Date	*Action*
July 2003	Members of the Committee to be invited to provide their comments, if any, on a document, to be prepared by the Office for Outer Space Affairs, correlating recommendations of the United Nations Millennium Declaration and the Plan of Implementation of the World Summit on Sustainable Development with the recommendations of UNISPACE III
	(Deadline for replies: end of October 2003)
	Members of the Committee to be invited to include in the annual reports on their space activities information on their initiatives/activities that contribute to implementing the recommendations of UNISPACE III
	(Deadline for replies: end of October 2003)
	Organizations having permanent observer status with the Committee to be invited to submit reports on their initiatives/activities that contribute to implementing the recommendations of UNISPACE III
	(Deadline for replies: end of October 2003)
Early August 2003	The Office for Outer Space Affairs to circulate a questionnaire among Member States for conducting the survey on the priority given to each of the recommendations of UNISPACE III that are still to be addressed
	(Deadline for replies: end of November 2003)
Early September 2003	Office for Outer Space Affairs to circulate the draft of sections I-III to the members of the Committee
	(Deadline for replies: end of October 2003)
End of October 2003	Members of the Committee to submit annual reports on their space activities, including information on their initiatives/activities that contribute to implementing the recommendations of UNISPACE III
	Organizations having permanent observer status with the Committee to submit reports on their initiatives/activities that contribute to implementing the recommendations of UNISPACE III
	Action teams to provide the Office for Outer Space Affairs with revised input for the report (using the revised template)

Date	*Action*
	Members of the Committee to submit comments on the draft of sections I-III
	Members of the Committee to provide their comments, if any, on the document, to be prepared by the Office for Outer Space Affairs in July 2003, correlating recommendations of the United Nations Millennium Declaration and the Plan of Implementation of the World Summit on Sustainable Development with recommendations of UNISPACE III
End of November 2003	Member States to complete and return the questionnaire on the priority given to each of the recommendations of UNISPACE III that are still to be addressed
Mid-January 2004	Office for Outer Space Affairs to circulate to the members of the Committee the revised draft of sections I-III, incorporating comments received from members of the Committee
	Office for Outer Space Affairs to circulate to the members of the Committee the draft of sections IV-VI
February 2004	Review by the Scientific and Technical Subcommittee of the draft of sections I-VI, except for the parts of sections III, V and VI dealing with space law
March-April 2004	Review by the Legal Subcommittee of the parts of sections III, V and VI, dealing with space law
Mid-May 2004	Office for Outer Space Affairs to circulate the draft report of the Committee
June 2004	Finalization of the draft report by the Committee

Organization of work: future meetings

21. The working group agreed that, in order to advance the preparation of the draft report, it should hold informal consultations during the forty-first session of the Scientific and Technical Subcommittee, as well as the forty-third session of the Legal Subcommittee.

22. The working group recommended that the Committee, at its forty-seventh session, in 2004, should reconvene the working group. The working group also recommended that the Committee should allocate sufficient time for the working group to finalize the report to the General Assembly for endorsement by the Committee.

Notes

[a] Among the organizations having permanent observer status with the Committee, the following organizations provided input in accordance with the guidelines: the European Space Agency, the European Association for the International Space Year, the International Astronomical Union, the International Law Association and the International Society for Photogrammetry and Remote Sensing.

[b] *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002* (United Nations publication, Sales No. E.03.II.A.1), chap. I, resolution 2.

[c] *Official Records of the General Assembly, Fifty-seventh Session, Supplement No. 20* (A/57/20), annex I, para. 12.

Annex II

Results of the intersessional informal consultations on the composition of the bureaux of the Committee on the Peaceful Uses of Outer Space and its subsidiary bodies

1. With regard to the unresolved issue of the composition of the bureaux of the Committee on the Peaceful Uses of Outer Space and its subsidiary bodies for the third term, starting with the forty-sixth session of the Committee, in 2003, the Committee agreed at its forty-fifth session,[a] in 2002, that Austria would hold intersessional informal consultations, including with the chairmen of the regional groups, with a view to reaching consensus before its forty-sixth session, in 2003.

2. Pursuant to that agreement, Austria convened a series of consultations in informal meetings with all the members of the Committee, with the chairmen of the regional groups and with the members of each of the regional groups.

3. As a result of those deliberations, the members of the Committee reached the agreement presented below, on the basis of the measures relating to the working methods of the Committee and its subsidiary bodies, contained in the report of the Committee on the work of its fortieth session,[b] in 1997, which were endorsed by the General Assembly in its resolution 52/56 of 10 December 1997, in order to provide the basis for the election of the officers of the Committee at the beginning of its forty-sixth session.

Extension of the term of office of the current bureau of the Committee on the Peaceful Uses of Outer Space

4. The term of office of the current Chairman of the Committee, Raimundo González Aninat (Chile), would be extended for a period of one year, starting with the forty-sixth session of the Committee, in 2003, up to the beginning of the forty-seventh session, in 2004. Likewise, the term of office of the current First Vice-Chairman, Driss El Hadani (Morocco), and of the current Second Vice-Chairman/Rapporteur, Harijono Djojodihardjo (Indonesia), would also be extended for one more year. The term of office of the current Chairman of the Scientific and Technical Subcommittee, Karl Doetsch (Canada), and of the current Chairman of the Legal Subcommittee, Vladimír Kopal (Czech Republic), would cover the full period of their current term of office up to the beginning of the forty-first session of the Scientific and Technical Subcommittee and the beginning of the forty-third session of the Legal Subcommittee, in 2004.

Future composition of the bureaux of the Committee and its subsidiary bodies

5. With effect from the sessions of the Committee and its subcommittees in 2004, the term of each of the five offices of the Committee and its subcommittees would be for a period of two years, with a pattern of equitable geographical rotation being established in the following order: (a) Group of African States; (b) Group of Asian

States; (c) Group of Eastern European States; (d) Group of Latin American and Caribbean States; and (e) Group of Western European and Other States.

6. In accordance with this sequence and with effect from the sessions of the Committee and its subcommittees in 2004, the officers to be elected for the five offices should be determined by the regional groups in the following order (see appendices I and II): Chairman of the Committee; Second Vice-Chairman and Rapporteur of the Committee; Chairman of the Scientific and Technical Subcommittee; First Vice-Chairman of the Committee; and Chairman of the Legal Subcommittee.

7. With effect from 2004, the agreement on all the officers should be reached two years prior to the officers' assumption of their respective responsibilities. That agreement should be reflected in the Committee's report accordingly. Since every aspect of the establishment of the bureaux should be agreed upon by consensus, each regional group should ensure, with effect from 2004, that agreement within the group on the officer to be determined is reached two years prior to the beginning of the next term of the bureaux. This should ensure a consensus decision on the candidates from all five regional groups. In the case of later changes, such as in a case where an officer designated by a regional group is unable to assume his or her responsibilities for reasons of force majeure, the officer's country of origin and the respective regional group would designate another official as his or her replacement. Each regional group should determine a modality of decision-making to reach agreement on the candidate to be presented for consensus decision by the Committee, so that, in accordance with the traditional practice of the Committee on the Peaceful Uses of Outer Space and its subsidiary bodies, agreement on all officers of the bureaux can be reached through consensus. All member States of the Committee are eligible to be elected to any office in the bureaux. As a transitory measure, the Committee would agree at its forty-sixth session, in 2003, on the officers of the bureaux for the term starting in the year 2004.

8. With a view to assisting the officers of the bureaux of the Committee and its subcommittees in the general conduct of the Committee's business and to actively promoting and ensuring coordination, continuity of expertise and experience, and equitable and greater participation in the work of the Committee and its subcommittees, the five officers of the bureaux would consult, as necessary, the incoming and outgoing officers in the context of their functional responsibilities within the Committee and its subcommittees. Starting in 2004, that group would hold consultations, with the participation of the Office for Outer Space Affairs, to informally discuss, from the interdisciplinary, intersectoral and inter-institutional perspective of its composition, any pertinent matters related to the peaceful uses of outer space and to the Committee and its subcommittees, without prejudice to the role and functions of the Committee and its subcommittees. The officers, including incoming and outgoing members of the bureaux, should inform the members of the Committee and the chairmen of the regional groups of the results of their consultations.

9. This agreement would complement the current arrangements concerning the terms of office, which are reflected in the subsection entitled "Composition of the bureaux" under section A, entitled "Working methods of the Committee and its subsidiary bodies", of the Chairman's package proposal, as contained in the report of the Committee on its fortieth session,[5] in 1997. The other measures in section A

of the Chairman's package proposal, contained in appendix III to the present annex, would remain unchanged.

Notes

[a] *Official Records of the General Assembly, Fifty-seventh Session, Supplement No. 20* (A/57/20), para. 209.

[b] Ibid., *Fifty-second Session, Supplement No. 20* (A/52/20), annex I.

[c] Ibid., annex I, para. 2.

Appendix I

Future regional and functional rotation scheme of the Committee on the Peaceful Uses of Outer Space and its subsidiary bodies: 10-year cycle starting in the year 2004, by office

(GRULAC = Group of Latin American and Caribbean States; WEOG = Group of Western European and Other States)

Office	*First year 2004 (agreement in 2003)*[b]	*Second year 2005 (agreement in 2003)*[b]	*Third year 2006 (agreement in 2004)*[b]	*Fourth year 2007 (agreement in 2004)*[b]	*Fifth year 2008 (agreement in 2006)*[b]	*Sixth year 2009 (agreement in 2006)*[b]	*Seventh year 2010 (agreement in 2008)*[b]	*Eighth year 2011 (agreement in 2008)*[b]	*Ninth year 2012 (agreement in 2010)*[b]	*Tenth year 2013 (agreement in 2010)*[b]	*First year 2014*[a] *(agreement in 2012)*[b]	*Second year 2015 (agreement in 2012)*[b]
Chairman of the Committee	Group of African States	Group of African States	WEOG	WEOG	GRULAC	GRULAC	Group of Eastern European States	Group of Eastern European States	Group of Asian States	Group of Asian States	Group of African States	Group of African States
First Vice-Chairman of the Committee	GRULAC	GRULAC	Group of Eastern European States	Group of Eastern European States	Group of Asian States	Group of Asian States	Group of African States	Group of African States	WEOG	WEOG	GRULAC	GRULAC
Second Vice-Chairman and Rapporteur of the Committee	Group of Asian States	Group of Asian States	Group of African States	Group of African States	WEOG	WEOG	GRULAC	GRULAC	Group of Eastern European States	Group of Eastern European States	Group of Asian States	Group of Asian States
Chairman of the Scientific and Technical Subcommittee	Group of Eastern European States	Group of Eastern European States	Group of Asian States	Group of Asian States	Group of African States	Group of African States	WEOG	WEOG	GRULAC	GRULAC	Group of Eastern European States	Group of Eastern European States
Chairman of the Legal Subcommittee	WEOG	WEOG	GRULAC	GRULAC	Group of Eastern European States	Group of Eastern European States	Group of Asian States	Group of Asian States	Group of African States	Group of African States	WEOG	WEOG

[a] The system of rotation will follow the same sequence after the tenth year of the cycle; thus, the distribution of responsibilities will be the same in 2014 as in 2004, the same in 2016 as in 2006 etc.

[b] Year in which agreement is to be reached within the regional groups and among the members of the Committee.

Appendix II

Future regional and functional rotation scheme of the Committee on the Peaceful Uses of Outer Space and its subsidiary bodies: 10-year cycle starting in the year 2004, by regional group

Regional group	*First year 2004* *(agreement in 2003)*[b]	*Second year 2005* *(agreement in 2003)*[b]	*Third year 2006* *(agreement in 2004)*[b]	*Fourth year 2007* *(agreement in 2004)*[b]	*Fifth year 2008* *(agreement in 2006)*[b]	*Sixth year 2009* *(agreement in 2006)*[b]	*Seventh year 2010* *(agreement in 2008)*[b]	*Eighth year 2011* *(agreement in 2008)*[b]	*Ninth year 2012* *(agreement in 2010)*[b]	*Tenth year 2013* *(agreement in 2010)*[b]	*First year 2014*[a] *(agreement in 2012)*[b]	*Second year 2015* *(agreement in 2012)*[b]
Group of African States	Chairman of the Committee	Chairman of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Chairman of the Scientific and Technical Subcommittee	Chairman of the Scientific and Technical Subcommittee	First Vice-Chairman of the Committee	First Vice-Chairman of the Committee	Chairman of the Legal Subcommittee	Chairman of the Legal Subcommittee	Chairman of the Committee	Chairman of the Committee
Group of Asian States	Second Vice-Chairman and Rapporteur of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Chairman of the Scientific and Technical Subcommittee	Chairman of the Scientific and Technical Subcommittee	First Vice-Chairman of the Committee	First Vice-Chairman of the Committee	Chairman of the Legal Subcommittee	Chairman of the Legal Subcommittee	Chairman of the Committee	Chairman of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Second Vice-Chairman and Rapporteur of the Committee
Group of Eastern European States	Chairman of the Scientific and Technical Subcommittee	Chairman of the Scientific and Technical Subcommittee	First Vice-Chairman of the Committee	First Vice-Chairman of the Committee	Chairman of the Legal Subcommittee	Chairman of the Legal Subcommittee	Chairman of the Committee	Chairman of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Chairman of the Scientific and Technical Subcommittee	Chairman of the Scientific and Technical Subcommittee
Group of Latin American and Caribbean States (GRULAC)	First Vice-Chairman of the Committee	First Vice-Chairman of the Committee	Chairman of the Legal Subcommittee	Chairman of the Legal Subcommittee	Chairman of the Committee	Chairman of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Chairman of the Scientific and Technical Subcommittee	Chairman of the Scientific and Technical Subcommittee	First Vice-Chairman of the Committee	First Vice-Chairman of the Committee
Group of Western European and Other States (WEOG)	Chairman of the Legal Subcommittee	Chairman of the Legal Subcommittee	Chairman of the Committee	Chairman of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Chairman of the Scientific and Technical Subcommittee	Chairman of the Scientific and Technical Subcommittee	First Vice-Chairman of the Committee	First Vice-Chairman of the Committee	Chairman of the Legal Subcommittee	Chairman of the Legal Subcommittee

[a] The system of rotation will follow the same sequence after the tenth year of the cycle; thus, the distribution of responsibilities will be the same in 2014 as in 2004, the same in 2016 as in 2006 etc.

[b] Year in which agreement is to be reached within the regional groups and among the members of the Committee.

Appendix III

Measures in section A of the Chairman's package proposal, as contained in the report of the Committee on the Peaceful Uses of Outer Space on its fortieth session, in 1997*

Composition of the bureaux

1. Every aspect of the establishment of the bureaux should be agreed upon by a consensus of the Committee.

2. The bureaux will consist of the five current offices: Chairman, Vice-Chairman and Rapporteur of the Committee; Chairman of the Legal Subcommittee; and Chairman of the Scientific and Technical Subcommittee.

3. The five offices should rotate among the five regional groups, with one office being allocated to each of the regional groups: African Group, Asian Group, Eastern European Group, Latin American and Caribbean Group, and Group of Western European and other States.

4. Consultations should be held among the regional groups two sessions before the beginning of the next term to agree on the current officer(s) to be re-elected, if any, and to determine which group will be responsible for which office, taking into account the principle of rotation. This is generally in line with the practice of the General Assembly for electing officers for its Main Committees.

5. The qualifications for candidates to the offices of the bureaux should include: (a) demonstration of interest in the work of the Committee and its subsidiary bodies; (b) recognized experience and background relevant to the work of those bodies; and (c) commitment to fulfilling the tasks entrusted during the tenure.

6. The term of each office should be three years; no regional group should hold the same office for more than two consecutive terms.

7. When any officer cannot complete a term, the regional group holding the office concerned should nominate a candidate to be elected at the beginning of the session that immediately follows the termination of that officer's tenure; if such an election takes place in either of the subcommittees, it should be approved retroactively by the Committee at its session during the same year.

8. The election of chairmen of working groups established by the Committee and the two subcommittees should be excluded from the above arrangements, and should follow the current practice.

Agenda structures

9. "Review of the status of the five international legal instruments on outer space" should be included as an item on the agenda of the Legal Subcommittee. The Legal Subcommittee should give consideration to the

---

* See *Official Records of the General Assembly, Fifty-second Session, Supplement No. 20* (A/50/20), annex I.

possible inclusion of new items on "Comparison of the norms of space law and those of international environmental law" and "Review of existing norms of international law applicable to space debris" and other items such as those listed in document A/AC.105/639, paragraph 54.

10. Any proposal for including additional items in the agendas of the Committee or its subcommittees should be accompanied by a work plan, goals to be pursued and a time frame for consideration of the proposed items.

11. Any additional item may be included in an agenda or any item already under consideration may be deleted from an agenda with the approval of the General Assembly.

Duration of sessions

12. Consensus agreement should be reached on the agenda structures before determining the alternative meeting pattern.

13. The new meeting pattern should be two weeks each for the Scientific and Technical Subcommittee and the Legal Subcommittee, in February and in March, respectively, and one and one half weeks for the Committee in June, with the total meeting time being five and one half weeks.

14. The Committee may decide on an ad hoc basis to extend or shorten the duration of a particular session whenever there is such a need.

03-47171 (E) 220803